REPORT NUMBER 154

MARCH 1965

# Volume III ONE-FIFTH SCALE INLET MODEL WIND TUNNEL TEST REPORT



ARCHIVE COPY

#### DDC AVAILABILITY NOTICES

- 1.) Distribution of this document is unlimited.
- 2. This document is subject to special export controls and each transmittal to foreign governments or foreign nationals may be made only with prior approval of US Army Aviation Materiel Laboratories, Fort Eustis, Virginia 23604.
- 3. In addition to security requirements which must be met, this document is subject to special export controls and each transmittal to foreign governments or foreign nationals may be made only with prior approval of USAAVLABS, Fort Eustis, Virginia 23604.
- 4. Each transmittal of this document outside the agencies of the US Government must have prior approval of US Army Aviation Materiel Laboratories, Fort Eustis, Virginia 23604.
- 5. In addition to security requirements which apply to this document and must be met, each transmittal outside the agencies of the US Government must have prior approval of US Army Aviation Materiel Laboratories, Fort Eustis, Virginia 23604.
- 6. Each transmittal of this document outside the Department of Defense must have prior approval of US Army Aviation Materiel Laboratories, Fort Eustis, Virginia 23604.
- 7. In addition to security requirements which apply to this document and must be met, each transmittal outside the Department of Defense must have prior approval of US Army Aviation Materiel Laboratories, Fort Eustis, Virginia 23604.
- 8. This document may be further distributed by any holder only with specific prior approval of US Army Aviation Materiel Laboratories, Fort Eustis, Virginia 23604.
- 9. In addition to security requirements which apply to this document and must be met, it may be further distributed by the holder <u>only</u> with specific prior approval of US Army Aviation Materiel Laboratories, Fort Eustis, Virginia 23604.

#### DISCLAIMER

- 10) The findings in this report are not to be construed as an official Department of the Army position unless so designated by other authorized documents.
- 11. When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as

in any manner licensing the holder or any other person or corporation, or conveying any rights or permission, to manufacture, use, or sell any patented invention that may in any way be related thereto.

12. Trade names cited in this report do not constitute an official endorsement or approval of the use of such commercial hardware or software.

#### **DISPOSITION INSTRUCTIONS**

13. Destroy this report when no longer needed. Do not return it to originator.

14. When this report is no longer needed, Department of the Army organizations will destroy it in accordance with the procedures given in AR 380-5.

#### REPORT NUMBER 154

ONE-FIFTH SCALE INLET MODEL
WIND TUNNEL TEST REPORT
VOLUME III

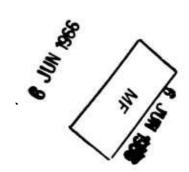
ACCESSION	for
CFSTI	WHITE SECTION
99C >	BUFF SECTION [
MICANICOUNC MICTIFICAT	
ey	PART AND THE PARTY
1	ION/AVAILABILITY CODES
əist.	AVAIL MELAT PECIAL
.,	
1 /	
1 /	

XV-5A Lift Fan Flight Research Aircraft Program Contract DA 44-177-TC-715

March 1965



ADVANCED ENGINE AND TECHNOLOGY DEPARTMENT GENERAL ELECTRIC COMPANY CINCINNATI, OHIO 45215



#### PREFACE

This is XV-5A Report No.154, published in three volumes, which presents low and high speed wind tunnel test results for a 1/5-scale inlet model of the U.S. Army XV-5A Lift Fan Research Aircraft. The tests were conducted at the David W. Taylor Model Basin (DTMB) subsonic and transonic wind tunnel facilities during the period 4 April to 29 May, 1962. Tabulated data are located in Volume II for the low speed tests (Mach 0 to 0.2), and in Volume III for the high speed tests (Mach 0.4 to 0.85). Summary tables, graphs, model description, instrumentation, conditions tested, validity of data and other information are presented in Volume I. In general, good repeatability of data was obtained, and with the exception of Run 1 data of the high speed tests and a few other isolated test points, the data presented are believed to offer a reliable basis for predicting aircraft performance.

This is Volume III.

#### CONTENTS

SEC HON		PAGE
1.0	INTRODUCTION	835
2.0	MODEL DESCRIPTION AND TEST PROCEDURES	837
	2.1 Model and Installation	837
	2.2 Test Procedure	838
3.0	TEST RESULTS	847
	LIST OF TABLES	
TABLE		PAGE
2-1	XV-5A Inlet Model Configuration Notation and Configurations Tested	840
2-2	XV-5A Inlet Model - General Location of Instrumentation	841
2-3	XV-5A Inlet Model - Defective Pressure Tubes	842
2-4	Definition of Symbols and Terms	843
3-1	Run Index, High Speed Wind Tunnel	849
29	High Speed Test Date	859

#### 1.0 INTRODUCTION

Volume III of Report No. 154 presents high speed wind tunnel test results of a 1/5-scale inlet model of the U.S. Army XV-5A Lift Fan Flight Research Aircraft (previously designated VZ-11). Tests were conducted at David W. Taylor Model Basin (DTMB) by Ryan Aeronautical Company as a part of its Wind Tunnel Test Program. Inlet performance and surface pressure data were obtained over the anticipated flight speed range of the XV-5A aircraft for a variety of inlet and model configurations. Low speed tests (0  $\leq$  M  $\leq$  0.2) were conducted in the DTMB 8 x 10 feet subsonic wind tunnel facility during the period 4 April to 2 May 1962. High speed tests (0.4 < M < 0.85) were conducted in the DTMB 7 x 10 feet transonic wind tunnel facility during the period 24 May to 29 May 1962. Presentations in this volume are limited to tabulated reduced test data and information considered necessary for their proper interpretation. Evaluation, analysis and discussions relating to data use for predicting YV-5A aircraft performance characteristics are presented in subsequent aircraft technical reports. The reader is reminded all reduced pressure data obtained from the wind tunnel tests are presented in tabular form under separate cover as follows:

Low speed data are located in Report No. 154 Volume II and high speed data are located in Report No. 154 Volume III.

The following information is located in Volume I:

The model description is located in Section 3.0; General Sketches and photographs are presented in Figures 2-1 to 2-8 of Section 2.0; Detailed model drawings are located in Figures 7-1 through 7-10 of Section 7.2; Photographs of the model installed in the low speed tunnel facility are shown in Figures 2-2 and 2-3, and in the high speed wind tunnel facility Figure 2-8.

#### 2.0 MODEL DESCRIPTION AND TEST PROCEDURES

#### 2.1 MODEL AND INSTALLATION

The Ryan XV-5A 1/5 scale inlet model was designed for testing in both low speed and high speed wind tunnels of the David W. Taylo Todel Basin facility. The model was constructed and instrumented by Contour Company, Rosemead, California according to specifications, drawings, and loft boards furnished by Ryan Aeronautical Company. Model configuration flexibility was obtained through a series of interchangeable instrumented components, including two canopy sections, three inlet sections and three inlet splitter sections which were attachable to the basic fuselage. Air flow passages were provided to simulate engine air flow and boundary layer bleed ducts. Compatible and interchangeable sting adaptors attached to the model base permitted model installation on the mounting systems of both low speed and high speed wind tunnel facilities without modification.

The model was constructed mostly of alternately oriented laminates of one-inch mahogany bonded with Penacolite to form a herringbone bond for added strength. The Penacolite bond is suitable for use to  $120^{\circ}$  F. The basic model component is the fuselinge section, which provides space for instrumentation and attachment of model interchangeable components, and which is attached to the sting adaptors for wind tunnel installation. Model fabrication tolerances related to loft boards were: external lines,  $\pm 0.030$ ; inlet lips,  $\pm 0.003$ ; and inlet duct passages,  $\pm 0.005$  inches. Inlet lips were fabricated of aluminum. The model was finished with a highly polished paint. Component notation and model configurations tested are summarized in Table 2-1.

Model instrumentation consisted of 153 total and static pressure probes generally located and identified in Table 2-2. Table 2-2 also references model drawings where detailed instrument location and identification may be obtained. A majority of the pressure probes were connected to three Scanivalves of 48 ports each. Simultaneous readings of all Scanivalve data were obtained by storing pressures in the storage manifolds by means of lockout valves. Stored pressures were fed to the Scanivalves, and transmitted to the recording system by two 5 psid and one 1 psid pressure transducers.

During high speed tests, from  $0.7 \le M \le 0.85$ , it was discovered that a few pressures were less than estimated and thus exceeded the pressure transducer capacity of the system involved. This condition was corrected and tests were continued. Data so affected are indicated by the terms P.O. (meaning pressure overflow) in the tabular data. Data were recorded sequentially on punched tape, coded for the ALWAC III-E computer, and typed by a Frieden Flexowriter. Test condition control information was manually typed into the data recording system. Model engine air flow rates were controlled by remotely positioned conical plugs at the outlet of the model air flow passages. Since the plugs were separately controlled from fully closed to fully open positions, engine out conditions could be simulated. Only the left engine duct was fully instrumented. Thus in applying model data to the full scale aircraft identical flow in both ducts is expected at all angles of attack for zero sideslip angles; while unequal flow is expected during sideslip angle studies, so that both positive and negative values must be considered to determine inlet performance during sideslip conditions. Flow control instrumentation (see Table 3-2) was provided in the calibrated model venturi section of both engine air ducts and photographically recorded from manometer boards. In the high speed tests engine air flow was obtained by wind tunnel ram pressure. The air was exhausted into the wind tunnel downstream of the model.

#### 2.2 TEST PROCEDURE

Periodically throughout both low speed and high speed wind tunnel tests pressure checks were made to determine the validity of the pressure probes. Any discrepancies were duly noted and indicated on the output data. Except for the pressure probes noted in Table 2-3 all instrumentation was considered in workable order. Transducer calibrations were obtained by applying known pressure differentials and noting the number of counts on the recorder system.

In general, the test procedure followed in both low speed and high speed wind tunnels consisted of the following steps:

- 1. Installation of model configuration in wind tunnel.
- 2. Establishment of wind tunnel speed.
- 3. Adjustment of model air flow rate.
- 4. Setting of model attitude by varying pitch ( $\alpha$ ) and sideslip ( $\beta$ ) angles.

The variables in each step were investigated until the desired matrix of

test data for each configuration was obtained. In the low speed facility, tunnel speed was controlled by dynamic pressure and all pressure data were referenced to barometric data. In the high speed facility, tunnel speed was controlled by Mach number, and all pressure data were referenced to total pressure. Definition of terms are presented in Table 2-4.

# TABLE 2-1 XV-5A INLET MODEL CONFIGURATION NOTATION AND CONFIGURATIONS TESTED

### **Configuration Notation**

C 1	Busic Canopy
C 2	Cut Down Canopy
1 0	24E Oval Inlet
1 1	30E Oval Inlet
I 2	Dual Inlet
S 0	Short Splitter Plate
S 1	Long Splitter Plate
S 2	Dual Inlet Splitter Plate
B 0	Boundary Layer Duct Plug Closed
B 1	Boundary Layer Duct Plug Open
E 1	Single Engine Operation
E 2	Two Engine Operation

Configurations Tested	Low Speed * Wind Tunnel	High Speed * Wind Tunnel
CISBE		
11112	×	X
10112	×	X
1 1 0 1 2	×	-
1 1 0 0 2	×	ı.
10012	X	-1
10002	X	-
1 2 2 1 2	×	X
1 2 2 0 2	X	
2 1 1 1 2	×	-
11111	×	-
10111	x	X
10011	X	-
1 2 2 1 1	X	X

- \* X Indicates configuration tested
  - Indicates configuration not tested

# TABLE 2-2 XV-5A INLET MODEL GENERAL LOCATION OF INSTRUMENTATION

Pressure Tube	General Designation	Reference * Figure
101 - 130	Compressor Face Rake Total Pressure	7-9
131 - 142	Boundary Layer Rake Total Pressures	7-8
143 - 144	Boundary Layer Duct Total Pressures	7-1
201 - 206	Compressor Face Wall Static Pressures	7-8
207 - 212	Compressor Bullet Wall Static Pressures	7-9
213 - 224	Inlet Top Static Pressures	7-8
225 - 236	Inlet Side Static Pressures	7-8
237 - 245	Inlet Splitter Static Pressures	7-8
301 - 309	Inlet Bottom Static Pressures	
310 - 320	Nacelle Top Static Pressures	7-8, 7-1
321 - 329	Nacelle Side Static Pressures	7-8
330A - 334A**	Canopy Side Static Pressures	7-1
335 - 342	Canopy Center-line Static Pressures	7-1
343 - 344	Canopy Side Static Pressures	7-1
401 - 404	Flow Meter Rake Total Pressures	7-6
405 - 408	Flow Meter Wall Static Pressures	7-6
409 - 412	Flow Meter Rake Total Pressure	7-6
413 - 416	Flow Meter Wall Static Pressures	7-6

<sup>\*</sup> See Report No. 154, Volume I.

<sup>\*\*</sup> Tubes 330 - 334 were replaced by 330A - 334A.

## TABLE 2-3 XV-5A INLET MODEL DEFECTIVE PRESSURE TUBES

#### **High Speed Tests**

Runs 1 and 2 108, 120, 131, 136, 202, 212, 223, 238, 239,

301, 312, 313, 314, 318, 328, 332A

Configuration C1, S1, B1

Runs 3, 4 and 5 108, 120, 126, 131, 134, 136, 204, 206, 212,

215, 234, 238, 239, 301, 310, 312, 313, 314,

317, 318, 321, 328, 330A, 332A, 333A

Configuration C1, I0, S1 and C1, I2, S2

### TABLE 2-4 DEFINITION OF SYMBOLS AND TERMS

Symbol	Definition	Units
A <sub>c</sub>	Area of compressor face	in <sup>2</sup>
A <sub>t</sub>	Area of inlet throat	in <sup>2</sup>
ВР	Boundary layer duct plug position	in
CP	Pressure coefficient	None
g	Acceleration of gravity = 32, 174	ft/sec <sup>2</sup>
К	Compressor face total pressure variation factor	<b>%</b>
L	Compressor face static pressure variation factor	%
LP	L/H engine duct plug position	inches
M <sub>c</sub>	Compressor face Mach number	None
MO	Free stream Mach number	None
M/MO	Mass flow ratio referenced to mass flow through stream tube area at free stream velocity	None
M/M*	Mass flow ratio referenced critical mass flow at inlet throat	None
NR	Inlet total pressure recovery factor; average of (PT/PTO) for tubes 101-130	None
PS	Static pressure	lb/ft <sup>2</sup>
PSB	Average static pressure engine bullet, tubes 207 to 212	lb/ft <sup>2</sup>
PSC	Average static pressure compressor face wall, tubes 201 - 206	lb/ft <sup>2</sup>
PS max	Maximum static pressure tubes, 201 - 206	lb/ft <sup>2</sup>

### TABLE 2-4 (Continued)

Symbol	<u>Definition</u>	Units
PS min	Minimum static pressure tubes 201 - 206	lb/ft <sup>2</sup>
PS <sub>n</sub>	Static pressure tube n	lb/ft <sup>2</sup>
PSo	Free stream static pressure	lb/ft <sup>2</sup>
PT	Total pressure	lb/ft <sup>2</sup>
PTC	Average total pressure at compressor face, tubes 101-130	lb/ft <sup>2</sup>
PT max	Maximum total pressure tubes 101 - 130	lb/ft <sup>2</sup>
PT min	Minimum total pressure tubes 101 - 130	lb/ft <sup>2</sup>
PTO	Free stream total pressure	lb/ft <sup>2</sup>
PT/PTO	Total pressure ratio	None
$q_{\mathbf{o}}$	Free stream dynamic pressure	None
R	Gas constant for air = 1716.322	ft <sup>2</sup> /sec <sup>2</sup> °R
RP	R/H engine duct plug position	inches
t <sub>o</sub>	Tunnel total temperature	°F
T <sub>tc</sub>	Total temperature at compressor face = t <sub>o</sub> + 459.69	°R
WC	Inlet duct air flow (L/H or R/H)	lb/sec
ALPHA	Model angle of attack	Degrees
ВЕТА	Model angle of sideslip	Degrees
γ	Ratio of specific heats for air = 1.4	None
CP	$= (PS_n - PS_0)/q_0$	

### TABLE 2-4 (Continued)

Symbol	Definition	Units
К	$= 100(PT_{max} - PT_{min})/PTC$	
L	$= 100(PS_{max} - PS_{min})/PTC$	
M/MO	$= \left(\frac{A_{c}}{A_{t}}\right) \left(\frac{PTC}{PTO}\right) \left(\frac{M_{c}}{MO}\right) \left[\frac{1 + \frac{\gamma - 1}{2} MO^{2}}{1 + \frac{\gamma - 1}{2} M_{c}^{2}}\right] \frac{\frac{\gamma + 1}{2(\gamma - 1)}}{1 + \frac{\gamma - 1}{2} M_{c}^{2}}$	
M/M*	= 1.728 $M_c A_c (PTC) / A_t (PTO) \left[ 1 + \frac{\gamma - 1}{2} M_c^2 \right] \frac{\gamma + 1}{2(\gamma - 1)}$	
M <sub>c</sub>	$= (2/\gamma - 1)^{1/2} \left[ \left( \frac{PTC}{PSC} \right)^{\frac{\gamma - 1}{\gamma}} - 1 \right]^{1/2}$	
МО	$= (2/\gamma - 1) \left[ \left( \frac{\text{PTO}}{\text{PSO}} \right)^{\frac{\gamma - 1}{\gamma}} - 1 \right]^{1/2}$	
q <sub>o</sub>	$= \gamma(MO)^2 PS_0/2$	
WC	$= \frac{g M_c A_c (PTC) (\gamma/R)^{1/2}}{144(T_{tc})^{1/2} \left[1 + \frac{\gamma - 1}{2} M_c^2\right]^{\frac{\gamma + 1}{2(\gamma - 1)}}}$	

#### 3.0 TEST RESULTS

All reduced data obtained from high speed wind tunnel tests (0.4  $\leq$  M  $\leq$  0.85) for the conditions of Table 3-1 are presented in Table 3-2. Data points are organized in numerical order of Run and Test Point. Data of Run 1 points 1 through 29 are questionable since external surface pressure coefficients are too high. Attention is called to the terms "N.G." and "PO"; the former represent deleted data corresponding to the defective instrumentation of Table 3-3; the latter corresponding to a "pressure overflow" of the Scanivalve capacity (equivalent to blowing a manometer). Tabular headings, identification of instrumentation, symbols, and supporting equations are defined in Tables 3-1 through 3-4. Note that the slight differences in the symbols of Report No. 154 and its supplements are due largely to tabular data format.



TABLE 3-1

Configuration C1I1S1B1E2

HIGH SPEED WIND TUNNEL RUN INDEX,  $0.4 \le M \le 0.85$ 

#### \* Data Plotted:

- 1 means NR, K and L plotted in Figures 4-1 through 4-36 of Volume I.
- 2 means p/Pt tubes 101 to 130 plotted in Figures 4-37 through 4-47 of Volume I.
- 3 means  $C_p$  tubes 310 to 344 plotted in Figures 4-48 through 4-81 of Volume I.

			-		Data	Tabulated Data		
	$M_{\odot}$	α	β	m/m*	Plotted*	Page	Volume	CASE
	.7	-)+	0	.350	1	864	III	H11-8
		-14	0	.782		866		H1-10
	9	14	0	.880		870		H11.14
		14	0	.325		873		H1-17
		-)+	0	.894		867		H1-11
		0	-14	.881		877		H1-21
		14	0	.924		269		Hl-13
		14	0	.767		271		H1-15
		-4	0	.925		868		H1-12
		0	14	.880		088		H1-24
		4	0	.583		872		H1-16
		0	4	.923		879		H1-23
		0	-)+	.923		878		HJ-55
		0	0	.926	1 +	859		H12
		0	0	.891.	1, 2	860		H13
		0	0	.339	1	863		H1-7
		-14	0	.597		865		H19
		0	-1+	.588	$\perp \perp \perp$	875		H1-19
		0	0	.936		886		H2-1
		0	0	.780		861		H1-1,
		0	-4	.345		874		H.L-1.8
		0	-4	•774		876	8 4	H1-50
		0	0	.593		862		н1-6
	.8	0	0	.816		883		H127
		0	0 .	.373		885		H129
		0	0	.912		882		HT-56
		0	0	.914		881		H1-25
		0	0	.624	<b>+</b>	884	<b>+</b>	H1-28
					1			
							A Marie	
							•	
					1			
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,								



### TABLE 3-1 (Continued) HIGH SPEED INDEX Configuration C1I0S1B1E2

				Data	Tabulated Data		CASE	
*	M <sub>o</sub>	α	β	m/m*	Plotted*	Page	Volume	CASE
								1.00
	.4	10	0	.475	1	1045	III	H)+-70
		10	0	.5%		1046		H4-71
		10	0	.610		1047		H14-72
		0	-4	.628		1048		H1+-71
		-4	0	.501		1039		H)4-6)
		4	0	.573		1043		н4-68
		0	-14	.573		1049		H4-7
		0	-4	.495		1050		H4-7
		14	0	.630		1042		H1+-6
		-4	0	.586		1040		H1+-6
		14	0	.491		1044		н4-6
		0	14	.492		1051		H4-7
		0	14	.631		1053		H4-7
		-4	0	.645		1041		H4-6
		0	-1	.639		1036		H4-6
A A		0	14	•574	1 1	1052		H4-7
		0	0	.500		1038		H1+-6
		0	0	.583	1, 2	1037	1-1-	H4-6
	<del></del>	+ -	<b> </b>	1.20	1 -, 2	1037	1-1-	11-4-0
	.6	5	0	.852	1	055	+	Н3-7
		2	14	.872	+ :	957		нз-6
		2	4	.811		945		н3-6
	_	2	8	.870	+	946	+	н3-6
		2	1 -4	.700	1-1-1	947	+	H3-5
	-	10	0	.852		939	+	H3-7
				.682	1	959	++-	
		10	0		+	960	+-+-	H3-7
		10	0	.287	1	962		н3-7
		5	-4	.312	+	942	+-	H3-5
		5		.811	1-1-	938	++-	н3-5
		0	0	.312		922	+-	н3-3
		5	8	.529		950		н3-6
		2	-8	.311		952	· .	н3-6
		2	-4	.868		937		н3-5
		9	0	.791		958		н3-7
		2	14	.529		943		н3-58
		2	14	.697	+	944	1 1	н3-59



### TABLE 3-1 (Continued) HIGH SPEED INDEX Configuration C110S1B1E2

	~	0 -	Data Plotted*	Tabula	ted Data	CASE	
M <sub>O</sub>	α	β	m/m*	Plotted*	Page	Volume	CASE
.6	10	0	.516	1	961	III	н3-76
	2	-4	.554		940		н3-55
	0	0	.533		923		н3-38
	0	0	.815		925		H3-40
	2	8	.316		951		н3-66
	2	8	.694		949		н3-64
	-2	0	.317		931		н3-46
	4	0	.298		932		H3-47
	-2	0	.823		928		н3-43
	2	8	.807		948		н3-63
	2	<u>-</u> β	.690		954		н3-69
	2	-8	.837		956		н3-71
	2	-4	.312		941		н3-56
	-2	0	.881	1 1	927		H3-42
	0	0	.706	1, 2	924	14	Н3-39
	- 0		1 . 700	1,2	344		11)-)
		<del></del>	+	1		<b>_</b>	
 			+				
		4		4			
	+		1	1			
 	+		+	1			
				1			
	<u>n</u>	,					
		1		1			
	-	-		-			



### TABLE 3-1 (Continued) HIGH SPEED INDEX Configuration C1I0S1B1E2

	м	м а	β <sup>m</sup> / <sub>m*</sub>	Data		ated Data	CASE	
	Mo	u			Plotted*	Page	Volume	
	.6	-1	0	.877	1	926	III	H3-41
		4	0	.697		934		H3-49
		-2	0	.714		929		H3-1+1+
		2	-8	.525		953		н3-68
		-2	0	.540		930		H3-45
		2	-8	.787		955		н3-70
		14	0	.529		933		н3-48
		4	0	.808		935		н3-50
		14	0	.872		936		H3-51
	.7	4	0	.765		899		H3-14
		1.0	0	.751		965		н3-80
		-4	0	-595		893		н3-8
		-4	0	.350		892		н3-7
		14	0	.582		900		н3-15
		0	8	.912		916		H3-31
		0	-8	.760		919		H3-34
	*.	0	0	.336		891		н3-6
		0	-14	.345		902		Н3-17
		0	1,	.910		907		Н3-22
		0	14	.346		911		н3-26
		0	-14	.588		903		н3-18
		0	-8	.584		920		н3-35
		0	0	.906	1	887	$\mathbf{H}$	H3-2
		0	0	.884	1,2	888		н3-3
		0	0	•775	1	889		H3-4
<del></del>		-14	0	.783	1	894	++-	нз-9
		4	0	.335		901		н3-16
		0	0	.590		890		H3-5
		0	8	.763	$\Box$	914		H3-29
		0	14	.770		909		H3-24
					+	908	++-	
		0	14 8	.881	+	912		H3-23 H3-27
		0	-8	.845	1	918		H3-33
		0	-14	.905	1	906	1-1-	H3-21
		0	-8	.888		917		H3-32
			-8	.3146		921	+	H3-36
		0			++++	967	+-+-	н3-8
		10	0	.905		896	++-	H3-1
		-4	0	.906	<del>                                      </del>		+	
		)‡	0	.878		898	I	Н3-1



# TABLE 3-1 (Continued) HIGH SPEED INDEX Configuration C110S1B1E2

v	α	β	m .	Data	Tabulat		CASE
M <sub>O</sub>	u u	Р	m/m*	Plotted*	Page	Volume	O'.BB
.7	-4	0	.890	1	895	III	H3-10
	10	0	.859		966		H3-81
 	0	4	.587		910		H3-25
	10	0	.316		963		н3-78
	10	0	.548		964		H3-79
	0	8	.877		915		H3-30
	0	-4	.881		905		H3-20
	14	0	.905		897		H3-12
	0	8	.584		913		H3-28
	0	-4	.775	•	904		H3-19
 .8	-1+	0	.899	1,3	976		H3-91
	14	0	.718	<b>  </b>	978	<b></b>	H4-1
	0	1,	.796		988		H4-11
 	0	0	.365		972		H3-87
 	0	0	.614	1	971		н3-86
	0	-4	.615		984		H <sup>h</sup> -7
	10	0	.445		983		H/+-0
	-4	0	.640		974		н3-89
	0	14	.897		987		H <sup>1</sup> +-10
	l <sub>4</sub>	0	.89,8		980		H4-3
	0	0	.893		968		н3-83
	0	0	.900		969		н3-84
	0	14	.575		989		H4-12
	10	0	.706		981		H4-4
	4	0	.744		979		H/1-5
	10	0	.593		982		H4-5
	-4	0	. 369		973		H3-88
	-4	0	.899		977		H3-9≥
	0	0	.805		970		H3-85
	0	-4	.904		986		H4-9
	-14	0	.826		975		Н3-90
	0	-4	.808		985		H4-8
.85	0	0	.569	1	990	174.07	H4-13
	0	4	.820		1004		H4-27
	-4	0	.806	1	994		H4-17
	0	. 0	.825	<b> </b>	992	<b></b>	H4-15
	0	4	.893	<b>!</b>	1005		H4-28
	0	0	.736	<b>*</b>	991	L_\\dag{\psi}	H4-14



### TABLE 3-1 (Continued) HIGH SPEED INDEX Configuration C1I0S1B1E2

	α 6	~	α	α β	m ,	Data	Tabulated Data		CASE
M <sub>o</sub>	α	P	m/m*	Plotted*	Page	Volume	CASE		
.85	14	0	.704	1	998	III	H4-21		
	0	-14	.896		999		H)+-55		
	0	14	.623		1003		H4-56		
	0	- )+	.627		1002		H4-25		
	0	-14	.822		1001		H4-54		
	14	0	.605		997		H4-20		
	-14	0	.616		995		H <sup>1</sup> 4-18		
	0	-14	.822		1000		H4-23		
	14	0	.475		996		H4-19		
	-14	0	.874	+	993	+	H4-16		
-+	<del>                                     </del>	+		1					
 <del></del>		+				1			
 <u>}</u>		1	_	1		1			
	<del> </del>	<del></del>		1					
		<del></del>	-						
		<del></del>				-			
		<del>-</del>		1		1			
	-	<del> </del>							
 	+	-							
		-		-					
 		-							



### TABLE 3-1 (Continued) HIGH SPEED INDEX Configuration C1I2S2B1E2

Mo	α	β	m/m*	Data Plotted*	Tabula Page	Volume	CASE
			1 /	1	Tuge	III	province to
. 4	0	0	•595	i	1079	1 1	H5-14
	0	0	.510		1080		H5-15
	0	o	.385		1081		H5-16
			1.00		1001		11)-10
.6	0	0	.685		1077		H5-12
	0	0	.807		1078		H5-13
	0	0	.526		1076		H5-11
7	0	0	.755		1068		H5-2
	0	0	.858		1067		H5-1
	0	0	.592		1069		Н5-3
					491		
.8	0	0	.887		1073		н5-8
	0	0	.619		1075		H5-10
	0	0	•797	+	1074		Н5-9
			- 4				



### TABLE 3-1 (Continued) HIGH SPEED INDEX Configuration C1I0S1B1E1

M <sub>o</sub>	α	β	m/m*	Data Plotted*	Tabulat Page	ed Data	CASE
0			7	Plotted	rage	102	
	<del> </del>	<b></b>	-				
		ļ					-
 . 14	0	14	.657	1	1065	III	H4-92
• • •	0	-1+	.602	+-:	1063	1	H4-90
				<del>\                                    </del>	1064	+	H4-91
	0	-4	.663	+	1062		H1+-89
	0		.514	+		++-	H <sup>1</sup> 1-93
	0	1 <sub>4</sub>	.603	+	1066 1056	++-	H4-82
	0	0	.51.6	1 1	1054	++-	H4-80
	0		.641.		1054	++-	H <sup>1</sup> 4-81
	0	0	.610	+		+	
 	-4	0	.523	+-+-	1057	++-	H4-83
 	-14	0		++-	1058	++-	н4-85
			.673	+	1059	++-	
	14	0	.663	-	1060	-	н4-86
 - 1	jt.	0	.605		1061		н4-87
	+, $-$		1.170	+-+-	1027	++-	11h 61
 .6	14	0	.475			-	H4-51
	4	0	.673	++-	1028	+	H4-52
	0	-14	•799	$\leftarrow$	1030		H4-54
	4	0	.791	+	1029	<del>                                     </del>	H4-5
	0	-4	.696	1	1031		H4-55
	0	0	.51.4	+-+-	1021	+	H4-45
 <del> </del>	0	0	.684	4	1022	+	H4-40
	0	0	.800	+-	1023		H4-47
 <b>}</b>	0	14	.677		1034		H4-58
	0	14	.786	4	1035		H14-59
 	0	-4	.523	4-4-	1032	<del></del>	H4-56
<u> </u>	-14	0	.806		1024	+	H1+-48
	-)+	0	.695		1025		H1+-1+C
	-1+	0	.527		1026		H <sup>1</sup> +-50
	0	14	.515		1033		H-45
 						1-1-	
.7	0	-1	.870	1	1006	1-1-	H4-55
	0	-1	.556	<del></del>	1008		H4-31
	0	-4	.764		1016		H1+-1+C
	0	14	.752		1019		H1+-1+
	0	14	.862		1018		H14-14
	0	-14	.877		1017	4	H4-4
	-4	-1_	.877	1 +	1011	1 +	H4-3



### TABLE 3-1 (Continued) HIGH SPEED INDEX Configuration C1I0S1B1E1

	M <sub>O</sub>	α	β	m,	Data	Tabulat	ed Data Volume	CASE
				m/m*	Plotted*	Page		
	•7	0	1;	•575	1	1020	III	H)+-1+1+
		4	0	.852	$\bot$	1012		н4-36
		14	0	.515	1 1 1	1014		H4-38
		0	-4	.548		1015		H4-39
		-4	-1	.772		1010		H4-33
		-4	-1	.586		1009		H4-32
		. 4	0	.732		1013		H4-37
		0	-1	.767	1	1007		H4-30
					1			
					-			
							1	
9 (6)								
							<b>-</b>	
**					$\vdash$			



### TABLE 3-1 (Continued) HIGH SPEED INDEX Configuration C1I2S2B1E1

	M	~	Q	m	Data	Tabula	ted Data	CASE
	M <sub>o</sub>	α	β	m/m*	Plotted*	Page	Volume	CADIS
				-				
			<del></del>					
		-	1					
	.7	0	0	.730	1	1071	III	H5-5
		0	0	.569		1070		H5-4
		0	0	.826	1	1072	+	н5-6
				100				
						4.00		
		1.1						
		+	-	<del></del>				
	_							
			*					
					9			
		1						
		+	1					
<del></del>		+	1	_				
				1				
						9		
	*							
*								

### INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER. PT 2 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA -0.01	BETA -0.02	M0 0.700	M/M* 0.926	LP 2•51	RP 2•5		
NR	PTC				K	L	WC	M/M0
0.996	2108				5.41	5.61	2.24	1.013
••,,,	2100				70 12	, , , ,		20025
		TOTA	L PRESSU	IDE DATI	OS. PT/P	T ()		
INLET R	AFF	1012	L TRESSE	AL ARIT	750 - 17-	• 0		
	8 0.9635	0.9874	0.9906	0.9469	1.0001	1.0008	1.0007	N.G.
	6 1.0008		1.0006	1.0004	1.0004	1.0004	1.0005	1.0004
	4 1.0005		1.0006	N.G.	1.0006	1.0004	1.0006	1.0006
	0 1.0004		1.0006	1.0005	1.0005	1.0004		
	Y LAYER !	-		20000				
131-13			1.0005	1.0004	1.0004	N.G.	1.0005	1.0004
	2 1.0004		1.0005	1.0004				
	Y LAYER							
	4 1.0004							
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA								
	6 1558.9	N.G.	1602.1	1586.0	1484.4	1483.8		
RAKE BU						_		
	2 1395.2	1415.5	1426.8	1410.4	1384.4	N.G.		
TOP								
	0 2043.2	1914.4	1676.9	1408.1	1302.0	1376.8	1449.7	1461.5
	4 1455.6	1683.2	N.G.	1666.8				
SIDE		2070 4			1004 0			10440
	2 1866.7		1717.6	1477.0	1234.8	1302.0	1348.3	1366.9
	6 1373.1	1573.9	1690.5	1766.2				
SPLITTE		A. C	A. C	1505 E	1500 0	1405 0	1401 2	1522
	4 1583.2	N.G.	N.G.	1585.5	1583.2	1695.3	1601.3	1520.0
245	1508.9							
BOTTOM	9 N C	1550 /	1670 1	1600 0	1502 7	1550 7	1401 4	1425 4
		1550.4	12/401	1204.0	1583.7	1220.1	1201.0	1033.4
309	1645.6							
		STATIC	DDFCCHD	E COFFEI	CIENTS.	СР		
NACELLE	TOP	SIAILC	PRESSOR	L COLFIT	CIENTS	Cr		
		-0-194	N.G.	N.G.	N.G.	1.131	1.130	1.130
		1.130			11000		10130	10150
NACELLE		24170	44.50					
		-0-118	-0.378	1.130	1.130	1,131	1.130	N.G.
	1.130	0,110		1110	- 4 2 3 0			
CANOPY								
		1.130	N.G.	1.131	1.131			
	CENTER L							
	2 1.130		1.131	1.131	1.131	1.131	1.130	1.130
CANOPY					- • • • •			
	4 1.130	1.130						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.

N.G IMPLIES BAD TUBE, P.O PRESSURE OVERFLOW, DATA INVALID.

\*In all of the following High Speed Test Data, tubes 330-334 should read 330A-334A.

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 3 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

		_		_				
	ALPHA	BETA	MO	M/M*	LP	RP	BP	
	-0.01	-0.02	0.700	0.891	2.00	2.00	UPEN	M (MA)
NR O 227	2100	PSC	PS	18 17 (	K	L 0.7	WC	M/M0
0.997	2109	• 5 1610	• 9 159	7.4	4.69	4.87	2.15	0.975
		TOTA	ı DDESSII	DE DATIC	DS. PT/P1	T 0		
INLET F	DAVE	1014	L PRESSO	INE KAIT	731 FIF	. 0		
	08 0.9713	0.0906	0.9936	0.9543	1.0002	1.0007	1.0008	N.G.
	16 1.0011				1.0008		1.0008	
	24 1.0010			N•G•			1.0008	1.0010
	30 1.0008			1.0006		1.0007	10000	10010
	RY LAYER		1.0000	140000	10010	1000,		
	38 N.G.		1.0000	1.0000	1.0000	N.G.	0.9999	1.0000
	+2 0.9998		0.9999					
	RY LAYER		••,,,,	10000				
	44 0.9999							
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	ALL							
	06 1624.0	N.G.	1662.4	1648.8	1559.6	1559.6		
RAKE BU				-				
_	12 1483.1	1500.0	1509.9	1498.6	1477.5	N.G.		
TOP				_				
213-22	20 2018.7	1952.4	1736.4	1496.4	1408.8	1476.6	1524.6	1541.8
221-22	24 1535.3	1730.7	N.G.	1717.2				
SIDE								
	32 1813.7	2093.0	1777.0	1561.6	1361.1	1411.9	1442.2	1459.7
	36 1464.7		1736.9	1806.1				
SPLITTE	ER							
237-24	4 1608.7	N.G.	N.G.	1611.6	1606.5	1742.0	1655.6	1584.5
245	1573.7							
BOTTOM								
301-30	08 N.G.	1618.0	1643.6	1649.4	1644.1	1618.5	1657.9	1684.5
309	1695.7							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 -0.005	-0.263	N.G.	N.G.	N.G.	1.128	1.128	1:128
318-32	20 N.G.	1.129	1.128					
NACELLE	SIDE							
321-32	28 0.077	-0.182	-0.431	1.129	1.128	1.128	1.128	N.G.
329	1.128							
CANOPY	SIDE							
	1.128	1.128	N.G.	1.128	1.128			
	CENTER L							
335-34	2 1.127	1.128	1.128	1.128	1.127	1.128	1.128	1.128
CANOPY	SIDE							

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE, P.O PRESSURE OVERFLOW, DATA INVALID.

343-344 1.128 1.128

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 4 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

		M/M* 0.780		N
NR U•999		1 2.70	WC 1.88	M/M0 0•853

#### TOTAL PRESSURE RATIOS. PT/PTO

INLET RAI	ΚE							
101-108	0.9827	0.9929	0.9984	0.9735	1.0004	1.0006	1.0010	N.G.
109-116	1.0011	0.9999	1.0010	1.0010	1.0008	1.0000	1.0010	1.0011
117-124	1.0010	1.0008	1.0011	N.G.	1.0011	1.0006	1.0010	1.0008
125-130	1.0006	1.0006	1.0008	1.0007	1.0007	1.0007		
BOUNDARY	LAYER R	AKE						
131-138	N • G •	1.0000	1.0000	1.0000	0.9999	N.G.	1.0000	1.0000
139-142	1.0000	1.0000	1.0000	1.0000				
BOUNDARY	LAYER D	UCT						
143-144	1.0000	1.0001						

#### INLET STATIC PRESSURES. PS

	1110	LI VIAIA	CINESSO	KLUV IU			
RAKE WALL							
201-206 1777.3	N.G.	1801.6	1790.6	1731.3	1732.4		
RAKE BULLET							
207-212 1685.0	1694.3	1701.4	1696.3	1680.5	N.G.		
TOP							
213-220 1921.9	2041.9	1884.0	1711.5	1648.0	1689.5	1708.7	1720.6
221-224 1718.6	1845.4	N.G.	1837.2				
SIDE							
225-232 1629.4			1774.8	1638.7	1651.7	1669.2	1671.7
233-236 1674.8	1777.9	1851.0	1900.7				
SPLITTER							
237-244 1673.7	N.G.	N.G.	1674.3	1669.7	1853.5	1791.4	1742.6
245 1735.5							
BOTTOM							
301-308 N.G.	1784.0	1795.3	1795.0	1792.4	1772.5	1795.5	1811.4
309 1820.6							
	STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE TOP							
310-317 -0.263	=		N.G.	N.G.	1.129	1.130	1.130
318-320 N.G.	1.130	1.129					
NACELLE SIDE							
321-328 -0.169	-0.369	-0.575	1.129	1.129	1.129	1.129	N.G.
329 1.129							
CANOPY SIDE							
330-334 1.129		N.G.	1.129	1.129			
CANOPY CENTER LI							
335-342 1.129	1.129	1.129	1.130	1.129	1.129	1.129	1.129
CANOPY SIDE							
343-344 1.129	1.129						

RP

BP

RUN 1 BASIC CANOPY. 30E QVAL INLET. LONG SPLITTER.
PT 6 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

ALPHA BETA MO M/M\* LP

	-0.01	-0.02	0.702	0.593	1.00	1.0	1 OPE	N
NR	PTC				K	L	WC	M/MO
	_	.2 1935					1.43	0.648
				-				
		TOTA	L PRESSU	RE RATIO	DS. PT/P	ТО		
INLET R	AKE							
101-10	8 0.9943	0.9970	1.0001	0.9915	1.0008	1.0011	1.0015	N.G.
109-11	6 1.0015	1.0011	1.0013	1.0013	1.0016	1.0016	1.0013	1.0015
117-12	4 1.0015	1.0015	1.0013	N.G.	1.0012	1.0015	1.0015	1.0015
125-13	0 1.0013	1.0015	1.0013	1.0015	1.0013	1.0013		
	Y LAYER							
131-13	8 N.G.	1.0000	1.0000	1.0000	1.0000	N.G.	1.0001	0.9999
139-14	2 0.9999	1.0001	1.0001	1.0001				
BOUNDAR	Y LAYER	DUCT						
143-14	4 1.0001	1.0000						
		INL	ET STATE	C PRESSU	JRES. PS			
RAKE WA	LL							
201-20	6 1940.8	N.G.	1952.6	1947.8	1916.5	1917.4		
RAKE BU	LLET							
207-21	2 1893.9	1898.4	1899.8	1900.7	1888.0	N.G.		
TOP								
213-22	0 1705.6	2109.6	2043.6	1940.8	1892.8	1907.5	1911.7	1914.2
221-22	4 1912.0	1974.4	N.G.	1971.8				
SIDE								
225-23	2 1211.2	2092.7	2074.9	1996.4	1914.5	1906.9	1906.3	1900.1
233-23	6 1897.3	1937.1	1977.5	2004.6				
SPLITTE	•							
237-24	4 1741.2	N.G.	N.G.	1742.3	1738.6	1979.8	1944.5	1919.9
245	1912.8							
BOTTOM								
301-30	8 N.G.	1975.1	1963.8	1957.2	1952.6	1938.8	1949.0	1957.2
309	1961.8							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 -0.752	-0.873	N.G.	N.G.	N.G.	1.130	1.130	1.130
318-32	0 N.G.	1.130	1.129					
NACELLE		•						
	8 -0.630	-0.703	-0.839	1.130	1.130	1.130	1.130	N.G.
329	1.130							
CANOPY								
	4 1.130	1.130	N.G.	1.130	1.130			
	CENTER L	INE						
335-34	2 1.130	1.130	1.130	1.130	1.130	1.130	1.130	1.130
CANOPY	SIDE							
343-34	4 1.130	1.130						

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 7 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA -0.02	M0 0 - 700	M/M*	_	RP 0•5		
NR	PTC				K	L	WC	M/M0
0.978			.3 201		0.95	0.75	0.81	
0.710	2009	2013		0.1	0.73	0013	0001	00310
		TOTA	PRESSI	DE DATIO	S. PT/P	tο		
INLET I	DAKE	1017	L PRESSO	NE NAIL	, T   F   F   F   F   F   F   F   F   F			
	08 0.9710	0.9733	0.9761	0.9780	0.9772	0.9763	0.9761	N.G.
	16 0.9782	0.9798	0.9791	0.9788	0.9767	0.9779	0.9788	0.9794
_	24 0.9794		0.9781	N.G.	0.9793		0.9793	0.9788
_	30 0.9790		0.9801	0.9803		0.9803	007173	0.7100
	RY LAYER I		0.7001	0.7003		007003		
131-1:			0.9998	1.0000	1.0000	N.G.	1.0001	1.0000
	1.0001		1.0001	1.0000	1.0000	14.0.	1.0001	1.0000
	RY LAYER I	_	1.0001	1.0000				
	44 1.0000							
142-1.	14 160000	1.0000						
		TAIL	ET STATE	C PRESSU	JRES. PS			
RAKE WA	N I I	INL	EI SIAII	CPRESSE	KESI PS			
	06 2005.9	N.G.	2021.4	2020.3	2009•3	2009.8		
RAKE BU		1,000	202104	202003	200743	2007.0		
_	12 1997.7	1997.4	2000.8	1998.8	1985.8	AL C		
TOP	12 199101	177/04	2000.6	133000	190300	N.G.		
	20 1789.9	2040.6	1951.4	1045 4	1856.0	1901.7	1926.8	1943.8
	24 1952.8	2013.5	N.G.	1865.6 2024.8	1030.0	1901.7	192040	(743.0
	4 1952.6	201303	14.00	202446				
SIDE	22 1252 0	2027 4	1987.5	1027 0	1024 2	1040 1	1050 5	1062 0
	32 1352.8	2027.6	_	1937.8	1924.3	1949.1	1950.5	1963.0
	1966.4	1999.7	2018.0	2028.2				
SPLITTE		N. C	N C	1720 5	1724 6	2021 1	2010 7	2004 2
	4 1737.9	N.G.	N.G.	1738.5	1734.5	2021.1	2010.7	2006.2
245	2116.0							
BOTTOM	NO AL 6	1000 1	1067 7	1005 2	2001 7	2020 0	2022 1	2020 /
	08 N.G.		142101	1982.3	2001.7	2020.0	2022.1	2023.4
309	2025.4							
			225.000					
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	_							
	7 -0.562			N.G.	N.G.	1.129	1.129	1.129
	0 N•G•	1.129	1.129					
NACELLE								
	-	-0.641	-0.830	1.128	1.129	1.129	1.129	N.G.
	1.129							
CANOPY								
330-33			N.G.	1.129	1.129			
	CENTER L							
	2 1.129	1.130	1.130	1.130	1.129	1.129	1.129	1.129
CANOPY	_							
343-34	4 1.129	1.129						

RUN 1 BASIC CANOPY, 30E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA	BETA		M/M*		RP	ВР	
		-0.02						
NR	PTC				K	١	WC	M/M0
1.000	2113	• 5 2054	•4 205	2.4	0.30	0.57	0.84	0.384
		T0.T4		S- S.T.				
	_	IOIA	L PRESSU	RE RATIO	)S. PT/P1	0		
INLET R								
	8 0.9970		0.9998	0.9983		1.0000	1.0000	N.G.
	6 0.9998	_	0.9998	1.0000	1.0000	1.0000	0.9999	1.0000
	4 1.0000			N.G.	1.0000	1.0000	0.9996	1.0000
	0 1.0000		1.0000	1.0000	1.0000	1.0000		
BOUNDAR	Y LAYER I							
131-13	8 N.G.	1.0001	1.0001	1.0001	1.0002	N.G.	1.0001	1.0002
139-14	2 1.0001	1.0000	1.0001	1.0001				
BOUNDAR	Y LAYER !	DUCT						
143-14	4 1.0002	1.0002						
		INL	ET STATE	C PRESSU	RES. PS			
RAKE WA	LL							
	6 2055.8	N.G.	2059.8	2060.1	2047.9	2048.2		
RAKE BU								
_	2 2040.6	2042.6	2043.4	2042.6	2031.3	N.G.		
TOP								
	0 1462.1	2092.3	2105.5	2073.9	2049.9	2051.9	2050.5	2049.9
	4 2048.2	2066.6	N.G.	2066.0				
SIDE	4 204002	200000		2000.0				
225-23	2 682.5	1947.7	2109.8	2111.7	2086.3	2072.2	2064.6	2058.4
	6 2054.1	2055.3	2069.4	2078.1	20000	201202	200400	203004
SPLITTE		205565	200784	20701				
	K 4 1792.7	N C	N.G.	1792.4	1789.0	2069.7	2058.1	2050.2
		N.G.	N.G.	117204	1709.0	2007.7	203011	2030.2
245	2048.8							
BOTTOM	0 11 6	2002 0	2070 0	2011	20/2 0	2055 2	2050 5	2040 0
		2082.0	2070.8	2000.4	2002.8	2055.2	205005	2060.8
309	2062.3							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 -1.195	-1.186	N.G.	N.G.	N.G.	1.128	1.128	1.128
318-32	0 N.G.	1.128	1.128					
NACELLE	SIDE							
321-32	8 -1.569	-1.073	-1.014	1.128	1.127	1.126	1.127	N.G.
329	1.125							
CANOPY								
330-33		1.124	N.G.	1.123	1.123			
CANOPY	CENTER LI	INE						
		1.123	1.123	1.123	1.123	1.123	1.123	1.123
CANOPY								
_	4 1.123	1.122						

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 9 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA -4.01		MO 0.700	M/M* 0•597	LP 1•00	RP 1.0		
NR		PSC				L		M/MO
1.000	2116	.0 1931	.8 192	8.9	1.00	1.71	1.43	0.653
						_		
		TOTA	L PRESSU	RE RATIO	OS. PT/P	70		
INLET			- 0000					ī. a
	08 0.9911		0.9998	0.9956		1.0006	1.0008	N.G.
	16 1.0008		1.0004	1.0006	0.9996	1.0008	0.9996	1.0008
	24 1.0008	-	1.0005		1.0007	1.0008	1.0011	1.0010
	30 1.0008		1.0011	1.0001	1.0008	1.0008		
	RY LAYER							
	38 N.G.		1.0000		1.0000	N.G.	1.0000	1.0000
	42 1.0000		1.0000	1.0000				
	RY LAYER							
143-14	44 1.0000	1.0000						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA					1010			
	06 1937.0	N.G.	1948.8	1947.2	1913.3	1912.7		
RAKE BU		100/ 1	1007 2	100/ 0	1000 5			
	12 1888.7	1894.1	1897.2	1894.9	1882.5	N.G.		
TOP	30 1001 2	2000	2010 0	1014 7	1070 6	1004 0	1002 6	1004 2
	20 1801.2		2018.0	1914.7	1873.5	1894.9	1902.5	1906.2
	24 1904.5	1971.7	N.G.	1968.0				
SIDE	22 1060 6	2077 2	2094 0	2011 2	1025 /	1010 7	1007 2	1000 2
	32 1060.6			2011.2	1925.4	1910.7	1907.3	1899.2
	86 1895.5	1935.0	1975.1	2003.3				
SPLITTE	=	N. C	N C	17/8 0	1744 7	1077 /	1041 6	1015 0
	•4 1748•7	N.G.	N.G.	1748.9	1/44.7	1977.4	1941.0	1915.8
245	1911.0							
BOTTOM	) 0 N C	1066 1	1062 8	1050 0	1044 1	1024 1	1044 0	1050 0
	08 N.G.		1952.0	1950.0	1940 • 1	1934.1	1944.9	1933.8
309	1957.9							
		CTATIC	DOLCCUD	COEFE!	CIENTS.	CD		
NACELLE	700	SIMITO	PRESSUR	COEFF1	CIENIS	CP		
	17 -0.467	-0.600	N G	N. G	N.G.	1 120	1.129	1 . 120
	20 N.G.			14.0.	N. 0.	10127	10129	1.129
NACELLE		10129	10129					
	28 -0.851	-0 900	-1.100	1.129	1.129	1.129	1.129	AL C
	1.129		-1.100	10127	10129	10129	14129	N.G.
329 CANOPY								
-	34 1.129	1.129	N.G.	1.129	1.129			
	CENTER '			10127	10127			
	2 1.129		1.129	1.129	1.129	1.128	1 120	1.120
CANOPY		10169	10127	10127	10120	10120	10120	1.128
	4 1.128	1.128						
747-24	10120	1.120						

RUN 1 B'SIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 10 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	МО	M/M*	LP	RP	ВР	
	_	-			1.50			ı
NR	PTC				K	L	WC U. Z.	M/MO
0.999	2113		.4 175		2.25	3.27	1.88	0.858
			•		2025			••••
		TOTA	L PRESSU	RE RATIO	S. PT/PT	0		
INLET R	RAKE							
101-10	8 0.9781	0.9931	0.9985	0.9839	1.0001	1.0006	1.0006	N.G.
109-11	6 1.0004	1.0004	1.0004	1.0005	1.0006	1.0006	1.0005	1.0006
117-12	4 1.0005	1.0005	1.0004	N.G.	1.0004	1.0001	1.0004	1.0002
125-13	0 1.0002	1.0001	1.0004	1.0004	1.0002	1.0002		
BOUNDAR	Y LAYER A	RAKE						
131-13	8 N.G.	1.0000	1.0000	1.0000	0.9999	N.G.	0.9999	0.9998
139-14	2 0.9998	0.9998	0.9998	0.9998				
BOUNDAR	Y LAYER D	DUCT						
143-14	4 0.9998	0.9997						
	-	-						
		INL	ET STATI	C PRESSU	IRES. PS			
RAKE WA	LL							
201-20	6 1774.4	N.G.	1798.1	1791.6	1728.9	1728.9		
RAKE BL	LLET							
207-21	2 1679.5	1689.9	1697.8	1691.6	1675.5	N.G.		
TOP								
213-22	0 1994.3	2003.3	1836.8	1669.6	1619.6	1667.9	1699.3	1714.8
221-22	4 1710.5	1842.7	N.G.	1836.2				
SIDE								
225-23	2 1504.1	2111.2	1955.6	1802.3	1658.9	1678.1	1672.4	1471.0
233-23	6 1670.5	1774.4	1848.3	1898.9				
SPLITTE	R							
237-24	4 1680.3	N.G.	N.G.	1681.5	1678.1	1851.4	1788.2	1738.2
245	1731.7							
BOTTOM								
301-30	8 N.G.	1768.6	1791.9	1795.5	1789.6	1770.4	1791.9	1809.8
309	1817.5							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 -0.023	-0.250	N.G.	N.G.	N.G.	1.127	1.126	1.126
318-32	0 N.G.	1.126	1.126					
NACELLE	SIDE							
3 <b>21-32</b>	8 -0.389	-0.562	-0.769	1.126	1.127	1.126	1.126	N.G.
329	1.126							
CANOPY	SIDE							
330-33		1.127	N.G.	1.127	1.127			
	CENTER LI							
		1.127	1.127	1.127	1.127	1.127	1.127	1.127
CANOPY								
343-34	4 1.127	1.127						

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 11 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA -4.01	BETA -0.02	M0 0•698	M/M* 0.894		RP 2 • 0		
NR	PTC	PSC	PS	8	K	L	WC	M/MO
C.997	2111	•2 1605	.8 159	0.6	3.97	4.93	2.14	0.980
		ATOT	L PRESSU	RE RATIO	OS. PT/P	TO		
INLET F	RAKE							
101-10	08 0.9615	0.9889	0.9967	0.9624	1.0004	1.0007	1.0007	N.G.
109-11	6 1.0005	1.0005	1.0006	1.0007	1.0008	1.0011	1.0005	1.0007
117-12	4 1.0007	1.0007	1.0005	N.G.	1.0006	1.0006	1.0005	1.0006
125-13	30 1.0006	1.0004	1.0004	1.0005	1.0005	1.0002		
BOUNDAR	RY LAYER	RAKE						
131-13	88 N.G.	1.0000	1.0001	1.0002	0.9999	N.G.	1.0000	1.0000
139-14	2 1.0000	0.9999	0.9998	0.9998				
BOUNDAR	Y LAYER	DUCT						
143-14	4 0.9998	0.9997						
		INL	FT STATI	C PRESSU	JRES. PS			
RAKE WA	\LL							
	6 1619.2	N.G.	1656.8	1645.5	1555.1	1552.6		
RAKE BU			•	•				
	2 1473.5	1492.7	1501.8	1489.9	1468.4	N.G.		
TOP								
	0 2071.0	1894.8	1668.3	1434.0	1365.7	1432.9	1517.6	1526.0
	4 1522.1		N.G.	1713.2				
SIDE								
	2 1724.5	2106.8	1814.0	1594.7	1379.2	1418.7	1439.6	1455.5
233-23			1733.9	1805.0	23.7.2			- 10010
SPLITTE	-	102000	1.3347	100200				
237-24		N.G.	N.G.	1617.0	1614.1	1739.5	1651.1	1579.7
245	1569.0			101.00	101441	1.3743	103141	131761
BOTTOM	1307.0							
301-30	8 N.G.	1617 0	1642 2	1650.7	1644.5	1412.8	1462.2	1470 4
		1017.9	1042.2	1650.1	104402	1012.0	1032 • 2	10/9.0
309	1691.6							
		CTATIC	DDECCUO	F 605551	CICNEC	<b>6</b> D		
NACCLIC	TOF	STATIC	PRESSUR	C COEFFI	CIENTS.	CP		
NACELLS		-0.050	N. C	A) C	AL C	1 127	1 127	1 127
	7 ( 220		N.G.	14.0.	N.G.	10127	10121	10127
	N.G.	1.128	1.128					
NACELLE		0 2//	0.600	1 120	1 120		1 107	AL C
		-0.346	-0.588	1.128	1.128	1.127	1.127	N.G.
329	1.128							
CANOPY		, , , , ,	A1 6	, , , , ,	, , , , ,			
	4 1.127		N.G.	1 • 127	1.128			
	CENTER L				_			
335-34		1.128	1.127	1.128	1.128	1.128	1.128	1.128
CANOPY								
343-34	4 1.128	1.128						

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 12 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	МО					
_	-4.01				2.51			
NR		PSC			K	L	WC	M/MO
0.997	2110	•1 1547	•3 152	!7 <b>.</b> 8	4.80	5.61	2.21	1.013
		7074		DE DAT!	0.5	T 0		
INLET	DAKE	IUTA	L PRESSU	KE KAII	OS. PT/P	10		
	08 0.9532	0.0872	0.9955	0.9544	1.0004	1.0010	1.0008	N.G.
	16 1.0007		0.9987	1.0007	1.0004	1.0011	1.0010	1.0011
	24 1.0008			N•G•	1.0008	1.0008	1.0008	1.0010
	30 1.0007		1.0008	1.0008	1.0008	1.0010	10000	10010
	RY LAYER !		1.0000	1.0000	1.0000	1.0010		
	38 N.G.		0.9999	0.9999	0.9999	N.G.	0.9999	0.9999
	42 1.0000		1.0000	1.0001		11000	00,,,,	••••
	RY LAYER (		1.0000	1.0001				
	44 1.0000							
1421	74 1.0000	1.0000						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE W	ALL							
201-2	06 1560.8	N.G.	1605.9	1591.5	1490.7	1487.6		
RAKE B	ULLET							
207-2	12 1397.3	1419.3	1430.6	1413.9	1388.5	N.G.		
TOP								
213-2	20 2085.1	1863.2	1619.8	1362.3	1276.2	1340.5	1454.3	1461.1
221-2	24 1456.3	1687.0	N.G.	1670.6				
SIDE								
	32 1770.0	2100.1	1771.4	1530.0	1281.0	1332.1	1359.5	1380.3
233-2	36 1379.8	1579.7	1696.3	1772.8				
SPLITT	ŁR							
237-2	44 1594.4	N.G.	N.G.	1595.5	1592.1	1699.4	1604.3	1523.2
245	1511.9							
BOTTOM								
301-3	08 N.G.	1564.5	1594.9	1600.8	1595.9	1556.8	1605•1	1636.4
309	1648.9							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELL	E TOP							
	17 0.276	-0.003	N.G.	N.G.	N.G.	1.128	1.128	1.127
318-3	20 N.G.	1.127	1.127					
NACELL	E SIDE							
321-3	28 -0.032	-0.296	-0.547	1.127	1.127	1.127	1.127	N.G.
329	1.127							
CANOPY	SIDE							
	34 1.127	1.127	N.G.	1.127	1.127			
CANOPY	CENTER L	INE						
335-3	42 1.127	1.127	1.127	1.127	1.127	1.127	1.128	1.128
CANOPY	SIDE							
343-3	44 1.128	1.128						

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 13 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RP	BP OR C	) 'Al
AL D	4.02	-0.05	0.698	0.924	2.51	2.00	U UPE	.N M/MO
NR (1.996	2106	.5 1542	. PS .7 152	98 93 - 7	K 6.57	5.64	2.21	1.013
0.770	2100	• 7 1242	• 1 1 2 2		0.51	3.04		10013
		TOTA	L PRESSU	RE RATIO	DS. PT/P	TO		
INLET F	RAKE							
	08 0.9705				1.0004	1.0007		N.G.
	16 1.0007				1.0004		1.0007	
	24 1.0006				1.0006		1.0005	1.0006
	30 1.0006		1.0005	1.0004	1.0007	1.0005		
	RY LAYER		0.000					0.000
	38 N•G•		0.9998	0.9998	0.9999	N.G.	0.9999	0.9999
	1.0001	-	1.0000	1.0000				
	RY LAYER I							
143-14	44 0.9997	0.9999						
		INL	FT STATI	C PRESSI	JRES. PS			
RAKE WA	A 1 . 1		CI OIMI	C / KESS	JACOV . O			
	6 1557.2	N.G.	1602.1	1584.3	1486.4	1483.3		
RAKE BU		,,,,,,						
	12 1392.9	1414.9	1425.1	1409.3	1383.9	N.G.		
TOP				_				
213-22	20 1999.7	1957.6	1727.5	1450.2	1325.7	1399.1	1441.2	1467.4
221-22	24 1457.8	1684.0	N.G.	1667.9				
SIDE								
	32 1954.2				1191.9	1266.4	1345.2	1358.5
	36 1366.9	1573.0	1688.2	1763.1				
SPLITTE					1500			
	+4 1581.5	N.G.	N.G.	1584.3	1580.1	1696.1	1600.1	1518.3
	1507.0							
BOTTOM		167.4 7	1672 /	1501 /	1574 2	1549 4	1600 8	1420 7
301-30	_		10/3.4	1501.4	1576.3	1540.4	1244.0	1630.7
309	1641.0							
		STATIC	PRESSUR	F COFFE	CIENTS.	CP		
NACELLE	TOP	517110	· KESSSK	L COLIT				
	7 -0.119	-0.378	N.G.	N.G.	N.G.	1.128	1.128	1.128
	20 N.G.		1.127					
NACELLE								
	28 0.320	0.037	-0.231	1.127	1.127	1.127	1.127	N.G.
329	1.127							
CANOPY								
330-33			N.G.	1.127	1.127			
	CENTER L							
	1.127	1.127	1.127	1.127	1.127	1.127	1.127	1.127
CANOPY		1 124						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE, P.O PRESSURE OVERFLOW, DATA INVALID.

343-344 1.127 1.126

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 14 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA -0.05		M/M* 0.880	LP 2•00	RP 2•0	_	
NR	PTC				K	L	WC	M/MO
0.997	2109	_			5.66	4.69		
		TOTA	L PRESSU	RE RATIO	S. PT/P	TO		
INLET F	•							
	08 0.9769		0.9897	0.9449		1.0007	1.0008	N.G.
	16 1.0007		1.0010	1.0008	1.0007	1.0011	1.0008	1.0000
	24 1.0008			N•G•	1.0011	1.0012	1.0012	1.0013
	30 1.0012		1.0011	1.0011	1.0011	1.0012		
	RY LAYER !							
131-13		0.9999	0.9999	1.0000	0.9999	N.G.	1.0000	1.0001
	2 1.0001	1.0000	1.0000	1.0002				
	RY LAYER !							
143-14	4 1.0002	1.0000						
		• • • •						
<b>5.</b>		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA		A. C.	1/7//	1441	1670 6	1677 (		
	6 1639.7	N.C.	1676.4	1661.1	1579.5	1577.6		
RAKE BU		1621 1	1521 2	1610 /	1500 0	A) C		
	2 1504.1	1521.1	1531.3	1519.4	1500•2	N.G.		
TOP	1042	2000	1704 7	1554 0	1457 0	1514 4	1644 0	1560 4
	20 1962.1 24 1558.9	2000.0		1556.9	1457.8	1516.6	154440	1563.4
	4 1556.9	1742.5	N.G.	1729.5				
SIDE	32 1904.0	2077.0	1741.9	152/ 1	1355•6	1412.9	1458.1	1475.1
_					1399.6	141267	1490 1	14/561
233-23 SPLITTE		1644.5	1746•4	. 1012.0				
	4 1618.8	N.G.	N.G.	1617.1	1616.2	1754.3	1669.0	1600.1
245	1590.5	Neos	14.0.	101711	1010.2	117467	1007.0	1000.1
BOTTOM	1590.5							
301-30	IR N.G.	1642.5	1658.0	1660.7	1658-1	1634.3	1671-2	1696.7
309	1706.7	104283	100000	100007	103001	103463	10/102	10701
309	110001							
		STATIC	DDECCHD		CIENTS.	CP		
NACELLE	TOP	SIMILE	PRESSURI	L JOEFF1	CIENTS	CP		
	7 -0.224	-0-464	N.G.	N.G.	N.G.	1.128	1.128	1.128
	O N.G.			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	11000	10120		10120
NACELLE		44120	10120					
	8 0.240	-0.026	-0.278	1.128	1.128	1.128	1.128	N.G.
	1.128	J			- 4 - 4 - 4			
CANOPY								
	4 1.128	1.129	N.G.	1.129	1.128			
	CENTER LI							
	2 1.128		1.128	1.127	1.128	1.128	1.128	1.128
CANOPY	SIDE							
343-34	4 1.128	1.128						

RUN	1	BASIC CANOPY, 30E OVAL INLET, LONG SPLITTER,
PT	15	BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

ALPHA 4•02	BETA -0.05	MO 0.698	M/M* 0•767	LP 1•50	RF 1•5		
NR PTC				K	L	WC	M/MO
	•9 1779		14.7	3.88	3 • 18	1.83	0.840
		• • • • • • • • • • • • • • • • • • • •		3000	3010	1003	
	TOTA	L PRESSU	JRE RATIO	S. PT/P	To		
INLET RAKE							
101-108 0.9861	∪•9936	0.9969	0.9624	1.0001	1.0008	1.0006	N.G.
109-116 1.0006	0.9917	1.0005	1.0007	1.0002	1.0007	1.0005	1.0000
117-124 1.0005	1.0005	1.0005	N.G.	1.0004	1.0006	1.0010	1.0008
125-130 1.0007	1.0011	1.0011	1.0011	1.0008	1.0011		
BOUNDARY LAYER !	RAKE						
131-138 N•G•	1.0000	1.0000	1.0000	1.0000	N.G.	1.0000	1.0001
139-142 1.0000	1.0000	1.0000	1.0000				
BOUNDARY LAYER (	DUCT						
143-144 1.0000	1.0000						
	INL	ET STATI	C PRESSU	JRES. PS			
RAKE WALL							
201-206 1789.0	N.G.	1813.0	1803.4	1747.0	1745.8		
RAKE BULLET							
207-212 1698.7	1709.7	1716.5	1711.1	1696.1	N.G.		
TOP							
213-220 1849.2	2071.7	1930•2	1755.2	1682.0	1716.2	1730.0	1736.5
221-224 1732.0	1854.8	N.G.	1847.8				
SIDE							
225-232 1750.6	2112.9	1898.3	1751.8	1630.1	1656.6	1673.6	1686.0
233-236 1685.1	1788.2	1859.1	1904.8				
SPLITTER							
237-244 1684.9	N • G •	N.G.	1686.5	1682.0	1863.9	1799.8	1755.2
245 1748.7							
BOTTOM							
301-308 N.G.	1818.5	1814.2	1811.3	1802.1	1785.3	1806.2	1822.9
309 1830.0							
	STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE TOP							
310-317 -0.503	-0.697	N.G.	N•G•	N.G.	1.128	1.128	1.128
318-320 N•G•	1.128	1.128					
NACELLE SIDE							
321-328 0.025	-0.189	-0.403	1.128	1.128	1.128	1.128	N.G.
329 1.129							
CANOPY SIDE			_	_			
330-334 1.129		N.G.	1.128	1.128			
CANOPY CENTER LI							
335-342 1.128	1.127	1.127	1.127	1.128	1.128	1.127	1.128
CANOPY SIDE							
343-344 1.128	1.128						

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 16 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA -0.05	MO U • 699	M/M* 0•583	LP 1•00	RP 1•0		
NR	PTC		PS		K	L	WC	M/M0
1.000		2 1941			1.58	1.69		
1.000	2110	02 1941	•0 193	1743	1.00	1.07	1037	0 0 0 30
		TOTA	, ppccci	DE DATI	OS. PT/P	T O		
1N1 57 5	14 V F	1014	L PRESSU	ME KAII	731 P17P	10		
INLET F		.) 0060	0.0004	0.0057	1 0000		1.0008	N G
	08 0.9948		0.9996	0.9857	1.0006	1.0010	1.0008	N.G.
	6 1.0011		1.0013	1.0013	1.0013	1.0016	1.0011	1.0010
	24 1.0013		1.0016	N.G.	1.0013	1.0016	1.0012	1.0013
	30 1.0016		1.0011	1.0015	1.0006	1.0015		
	RY LAYER I							
131-13	88 N.G.	1.0002	1.0002	1.0002	1.0003	N.G.	1.0003	1.0004
139-14	2 1.0004	1.0004	1.0003	1.0004				
BOUNDAR	RY LAYER I	DUCT						
143-14	4 1.0002	1.0003						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	\L <b>L</b>							
	6 1946.6	N.G.	1959.0	1955.1	1923.2	1924.3		
RAKE BU								
	2 1901.1	1905.9	1909.6	1907.9	1895.5	N.G.		
TOP								
	20 1633.2	2116.3	2062.4	1960.1	1908.8	1919.5	1922.0	1923.2
	4 1919.8	1980.2	N.G.	1977.4	170000	171743	1,22,00	172302
SIDE	. 4 1)1/60	170002		171164				
	2 1402.5	2110.6	2058.4	1978.5	1903•4	1902.0	1904.5	1901.4
					190344	1902.0	170465	1901.4
233-23		1945.7	1982.4	2008.7				
SPLITTE			<b>N</b> 6	. 3.5.5. 3	1750		1061	1004
237-24		N.G.	N.G.	1755.7	1/50.1	1985.8	1951.1	1926.8
245	2116.0							
BOTTOM								
301-30	8 N.G.	2007.8	1983.2	1971.5	1962.8	1945.6	1954.3	1962.8
309	1966.9							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 -0.974	-1.092	N.G.	N.G.	N.G.	1.130	1.130	1.130
		1.130						
NACELLE								
	8 -0.376	-0.484	-0.631	1.130	1.130	1.129	1.129	N.G.
	1.129							
CANOPY								
	4 1.129	1.130	N.G.	1.129	1.130			
	CENTER LI			,				
	2 1.130	1.130	1.130	1.130	1.130	1.130	1.130	1.130
CANOPY		1.10	14150	14170	10150	1.100	1.10	1.130
	4 1.129	1.129						
J-7J-74		10161						

### INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 17 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

		BETA -0.05						
NR		PSC				L		
		.0 1961					0.77	
	2015	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		1432			****
		TOTA	L PRESSU	RE RATIO	DS. PT/P	TO		
INLET F	RAKE							
	08 0.9459			0.9537		0.9507	0.9505	
109-11	16 0.9490		0.9548		0.9517	0.9499	0.9494	0.9528
	24 0.9556			N.G.		0.9526	0.9557	0.9555
	30 0.9549		0.9539	0.9556	0.9578	0.9580		
	RY LAYER F							
131-13	38 N.G.		1.0000		1.0001	N.G.	1.0000	1.0001
139-14	2 1.0000	0.9999	0.9999	0.9999				
	RY LAYER (							
143-14	4 0.9998	0.9998						
		7 4	FT CT471	c Doccer	וחכר פר			
RAKE WA	\	INL	FI SIAII	C PKESSU	JRES+ PS			
		N.G.	1966.2	1965.6	1958•0	1956 - 3		
RAKE BU		NOO	1700.2	1705.0	1770.00	1770.5		
	2 1941.4	1944.2	1945.9	1942.2	1932.0	N.G.		
TOP	2 174164	1744 62	17-207	174202	175240	11.00		
•	20 1893.1	1989.6	1828.7	1686.4	1678•2	1768.6	1814.0	1843.7
	24 1861.4		N.G.	1965.6	10,002	1100.0	101400	104561
SIDE	.4 100144	174044		170200				
	2 1675.1	1976.9	1824.5	1759.8	1742.3	1804 - 1	1846.8	1869.1
	6 1884.6	-	1958.9	1971.3	114203	100461	1040.0	100761
SPLITTE		173761	1,200,	171163				
	4 1702.8	N.G.	N.G.	1703.9	1699.7	1965.1	1956.9	1955.8
245	1953.8	1,000		1,0507	107741	170361	1,300,	1/25.0
BOTTOM	177540							
	8 NaGa	1711.3	1790.1	1836.9	1864.8	1931.1	1949.5	1959.0
	1962.8	2.2.20		10300	200 / 00	1,2161	201000	1,,,,
,	170200							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP					_		
51-31	7 -0.412	-0.711	N.G.	N.G.	N.G.	1.127	1.127	1.127
		1.128						
NACELLE								
		-0.340	-0.538	1.128	1.128	1.128	1.128	N.G.
	1.128							
CANOPY								
	1.128	1.128	N.G.	1.128	1.128			
	CENTER LI							
			1.128	1.128	1.128	1.128	1.128	1.128
CANOPY				_				
	4 1.128	1.128						

### INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER. BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA -4.00	M0 0.701	M/M* 0.345	LP 0•51	RP 0•50	BP OPEN	1
NR	PTC		-	-	K	L	WC	M/MO
1.000	2115		_	5.5	0.42	0.56	0.82	0.378
1,000	2113	2030	• 5 205	J., J	0.42	0000	••••	003.0
		TOTA	L PRESSU	RE RATIO	S. PT.P	ro		
INLET I	RAKE		£			. •		
	08 0.9969	0.9977	0.9990	0.9985	1.0007	1.0008	1.0008	N.G.
	16 1.0004		1.0006	1.0010	1.0008	1.0011	1.0006	1.0008
	24 1.0007		1.0007	N.G.	1.0007	1.0008	1.0007	1.0008
	30 1.0008	1.0008	1.0007	1.0008	1.0007	1.0006		
	RY LAYER		_					
131-1:		0.9998	0.9998	0.9998	0.9998	N.G.	0.9998	0.9998
	2 0.9998	0.9998	0.9997	0.9998				
	RY LAYER		-	-				
	4 0.9998	0.9998						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	ALL							
201-20	6 2059.9	N.G.	2064.2	2061.6	2052.3	2053.4		
RAKE BL	JLLET							
207-2	2043.8	2046.4	2047.5	2046.7	2033.7	N.G.		
TOP								
213-22	20 1476.9	2108.5	2110.8	2065.3	2037.1	2040.5	2041.6	2043.6
221-22	24 2044.1	2070.7	N.G.	2069.3				
SIDE								
225-23	32 1393.0	2095.2	2098.1	2058.2	2025.5	2027.2	2031.1	2032.3
233-23	6 2033.7	2056.6	2071.0	2080.3				
SPLITTE	R							
237-24	4 1793.7	N.G.	N.G.	1794.0	1788.6	2074.3	2061.9	2054.0
245	2052.6							
BOTTOM								
301-30	08 N.G.	2092.0	2073.8	2065.6	2059.7	2053.9	2061.5	2064.9
309	2065.6							
		STATIC	PRESSUR	E COEFFI	CIENTS.	ÇP		
NACELLE	TOP							
310-31	7 -1.195	-1.300	N.G.	N.G.	N.G.	1.129	1.129	1.130
318-32	0 N.G.	1.129	1.129					
NACELLE	SIDE							
321-32	8 -0.275	-0.354	-0.482	1.129	1.129	1.129	1.130	N.G.
329	1.130							
CANOPY								
		1.130	N.G.	1.131	1.131			
	CENTER LI							
		1.131	1.131	1.131	1.131	1.131	1.131	1.130
CANOPY								
343-34	4 1.130	1.130						

RUN 1 BASIC CANOPY, 30E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	_	BETA -4.00	MO	M/M#		RP 1•01	BP OPE	N
NR		PSC			K 1.00	L 1.03		M/MO
	_	•9 1936					-	
1.000	2113	• 9 1930	•0 193	4.0	1014	1.07	1037	0.043
		TOTA	I DRESSI	DE PATIO	)S. PT/P1	r n		
INLET R	AVE	1017	L FRESSO	ME MAIL	234 - 171			
_	•	0.9943	0.9921	0.9907	1.0010	1.0011	1.0010	N.G.
	6 1.0010		1.0012	1.0015	1.0010	1.0017	1.0015	1.0016
	-			N•G•	1.0011	1.0017	1.0013	1.0016
_	0 1.0013	-	1.0012	1.0013	1.0010	1.0013	1.0013	1.0010
	Y LAYER		1.0019	1.0013	1.0011	1.0012		
		1.0000	1.0000	1.0000	1.0000	N.G.	1.0001	1.0000
				1.0000	1.0000	NOG	1.0001	1.0000
	2 1.0001		1.0001	1.0001				
	Y LAYER							
145-14	4 1.0001	1.0000						
		T A14	TT CTATI	C BBECCI	IDEC. DC			
0.445.144		INL	EI SIAII	C PRESSU	JRES. PS			
RAKE WA		N. C	1061 (	1060 2	1918.9	1916.4		
	6 1942.6	N.G.	1951.6	1950.2	131093	1910.4		
RAKE BU		1000 2	1000	1002 0	1000 /			
	2 1895.5	1900.3	1903.6	1902.0	1888.4	N.G.		
TOP	0 17// 7	2105 2	2010 7	1002 0	1057 1	1077 /	1000 2	1007 2
	0 1764.7		2019.7	1902.8	100/01	1877.4	1889.2	1897.2
	4 1896.3	1975.1	N.G.	1973.1				
SIDE	2 1000 /	2112 7	10/0 0	1052 5	1700 6	1010 2	1007 2	105. 5
	2 1809.6		1948.8	1852.5	1/88.5	1819.2	1837.3	1854.5
	6 1862.4	1933.6	1975.6	2001.3				
SPLITTE		٠. ٠.						
	4 1750.9	N.G.	N.G.	1753.2	1748.9	1973.4	1947.1	1922.3
245	2114.0							
BOTTOM	_							
		1920.9	1919.1	1919.3	1916.8	1924.5	1946.2	1956.4
309	1960.8							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE								
310-31	7 -0.6	-0.724	N.G.	N.G.	N.G.	1.129	1.129	1.129
318-32	0 N.	1.129	1.128					
NACELLE								
321-32	8 0.184	-0.021	-0.229	1.128	1.128	1.129	1.129	N.G.
329	1.129							
CANOPY	SIDE							
	4 1.129		N.G.	1.129	1.129			
CANOPY	CENTER L	INE						
335-34	2 1.129	1.129	1.129	1.129	1.129	1.129	1.129	1.129
CANOPY	SIDE							
343-34	4 1.129	1.129						

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 20 BOUNDARY LAYER DUCT OPEN. ROTH ENGINES OPERATIVE

	ALPHA	BETA	M0	M/M*	LP	RP		
NR	-0.02 PTC	-4.02 PSC					1 OPE	M/MO
0.998			_	-	K 2•73	L 2.21		
0.996	2109	•2 1/09	.8 176	401	2013	3.31	1.03	0.040
		TOTA	I PRESSI	DE PATIO	OS. PT/P	TO		
INLET I	DAVE	1017	E PRESSO	WE WALL	73 <b>7</b> F17F	10		
	08 0.9803	0.9833	0.9769	0.9742	1.0007	1.0008	1.0006	N.G.
	16 1.0007		1.0007	1.0011	1.0010	1.0015	1.0008	1.0011
-	24 1.0011		1.0010	N•G•	1.0008	1.0010	1.0007	1.0011
	30 1.0006		1.0008	1.0007	1.0003	1.0010	1.0007	1.0011
	RY LAYER !	<del>-</del>	1.0000	1.0007	1.0011	1.0010		
	38 NoGo	-	0.9999	1.0000	0.9998	N.G.	1.0000	1.0000
	42 0.9999		0.9998	0.9998	0.7770	N. G.	1.0000	1.0000
	RY LAYER I		0.7770	0.7770				
_	44 0.9998							
143-1	44 047770	0.9999						
		T ALL	ET STATI	C DUESSI	JRES. PS			
RAKE W	A 1 1	INC	EI SIAII	C PRESSO	JKEST PS			
	06 1780.0	N.G.	1803.7	1794.7	1736.8	1734.0		
RAKE BI	-	N.O.	100367	117461	1750.0	1734.0		
	12 1686.0	1696.7	1704.6	1699.2	1684.0	N.G.		
TOP	12 1000.0	10901	1704.6	107762	1004.0	N. 0.		
	20 1953.9	2014.9	1839.8	1648.1	1586.9	1639.9	1678.3	1698.9
	24 1699.8	1845.8	N.G.	1839.3	10000	103767	10/043	1070 7
SIDE	24 107760	1043.0	11.0.	103763				
	32 2012.9	2039.2	1699.8	1534.3	1438.3	1498.5	1594.8	1608.6
	36 1625.5	1767.6	1843.5	1887.6	143003	1470.5	133400	1000.0
SPLITTE		1/0/00	104363	1007.0				
	4 1678.3	N.G.	N.G.	1679.2	1674.4	1834.5	1789.6	1741.6
245	1734.5	14.0.	14.04	101762	101764	1034.5	110760	114140
BOTTOM	113463							
	)8 N.G.	1698.1	1726.7	1736 4	1741.2	1752 2	1791.7	1915 5
		10901	112001	1730.4	1/4103	117243	1/910/	101303
309	1820.1							
			22555112			-5		
NACELLE	TOD	STATIC	PRESSUR	E COEFFI	CIENTS.	Ch		
NACELLE	10P	-0.275	N · G	N.G.	N.G.	1.128	1.128	1.128
				N.G.	NOO	10120	1.120	10126
	20 N.G.	1.129	1.129					
NACELLE		0.216	-0-047	1.129	1.120	1.128	1.129	N.G.
	1.129	0.210	-0.041	10120	10127	10120	10129	14.0.6
CANOPY								
	34 1.129	1.128	N <sub>2</sub> G <sub>2</sub>	1.129	1.129			
	CENTER LI							
	2 1.129		1.128	1.129	1.129	1.129	1.129	1.129
CANOPY		- •						14167
	4 1.129	1.129						
5.5 5		/						

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 21 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

		EETA -3.99	M0 0-698	M/M# 0.881	_			
NR	PTC		PS		K	L	WC	M/MO
0.995		•2 1617		-		4.79	_	
	2102	1011	•0 100	, , , , ,	4423	4017		00,00
		TOTA	I DRESSI	DE DATI	OS. PT/P	T ()		
INLET I	DAVE	1017	E FRESSO	ME MAIL	737 F17F	. •		
	08 U.9663	0.9649	0.9590	0.9587	1.0006	1.0006	1.0007	N.G.
	16 1.0007		1.0007	1.0008	1.0007	1.0008	1.0004	1.0004
_			-				1.0004	
	24 0.9988		1.0004	N.G.	1.0004	1.0004	1.0004	1.0004
	30 1.0002		1.0005	1.0007	1.0007	1.0008		
	RY LAYER		0 2001	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •			• • • • • •
	38 N.G.		0.9996	0.9996	0.9994	N.G.	0.9944	0.9995
	42 0.9995		0.9995	0.9995				
	RY LAYER							
143-14	44 0.9996	0.9997						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE W	ALL							
201-20	06 1628.5	N.G.	1666.6	1652.5	1571.7	1565.8		
RAKE BI	JLLET							
207-2	12 1489.3	1506.8	1517.0	1505.9	1486.7	N.G.		
TOP								
	20 2036.2	1907.4	1676.5	1407.4	1313.9	1396.1	1491.0	1508.5
	24 1512.4		N.G.	1719.7				
SIDE				2,2,0,				
	32 2079.4	1958.0	1500.6	1262.3	1084.4	1156.7	1379.2	1389.3
_	36 1416.4	-		1785.5				150705
SPLITTE		102.04	1.2700	1.0000				
	44 1614.1	N.G.	N.G.	1616.6	1612.4	1729.0	1653.9	1583.0
245	1575.7			101000	101244	112700	103347	170700
BOTTOM	131361							
	08 N.G.	1501-4	1545.4	1565-8	1578.1	1593.7	1655.9	1682.5
309	1695.8		134344	150560	13/61	137301	103367	100367
309	109260							
		CTATIC	PRESSUR	E COEFE	CIENTS.	CP		
NACELIS	<b>T</b> OD	STATIC	PRESSUR	E COEFF	CIENISI	CP		
NACELLE		0 101	Ai C	N 6	N 6	1 126	1 126	
	17 0.063		N.G.	N.G.	N.G.	1.126	1.126	1.126
318-32		1.126	1.127					
NACELLE		0						
	28 0.627	0.333	0.053	1.127	1.127	1.127	1.126	N.G.
329	1.126							
CANOPY	-							
	34 1.126	1.126	N.G.	1.127	1.127			
	CENTER L							
335-34	2 1.127	1.126	1.126	1.127	1.126	1.126	1.126	1.126
CANOPY	SIDE							
343-34	4 1.126	1.126						

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 22 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA -0.02	BETA -3.99	M0 0-699	M/M# 0.923	LP 2•51	RP 2•5		
NR	PTC				K	L	WC	M/MO
0.993	2095			2.7		5.58	2.20	
							•••	
		TOTA	L PRESSU	RE RATIO	DS. PT/P	To		
INLET	RAKE							
101-1	08 0.9584	0.9543	0.9405	0.9521	1.0004	1.0007	1.0006	N.G.
109-1	16 1.0001	0.9956	1.0004	1.0006	1.0006	1.0010	1.0005	1.0007
117-1	24 1.0006	1.0007	1.0004	N.G.	1.0005	1.0007	1.0005	1.0005
125-1	30 1.0002	1.0005	1.0004	1.0007	1.0006	1.0007		
BOUNDA	RY LAYER	RAKE						
131-1			0.9998		0.9998	N.G.	0.9998	0.9999
139-1	42 0.9998	0.9998	0.9997	0.9998				
	RY LAYER							
143-1	44 0.9999	0.9999						
		INL	ET STATI	C PRESSI	JRES. PS			
RAKE W		G. •						
	06 1542.5	N.G.	1590.8	1576.1	1483.5	1473.9		
RAKE B		1/00 1		1007 (	1070 1	41 6		
	12 1381.3	1402.1	1412.3	1397.6	1373.1	N.G.		
TOP	20 2055 5	1044	1402 1	1206 2	1120 0	1227 2	1204 0	1404 7
	20 2055.5	-	1602.1	1289.2	1139.0	1237.3	1386.9	1406.7
	24 1414.6	1669.8	N.G.	1655.7				
SIDE	22 2001 4	1026.2	1422 4	1174 6	889.4	940.2	1180.2	1294.0
	32 2091.4	1924•2 1556•6	1432.6 1666.7	1174.6 1728.0	007.4	940.2	1100.2	1294.0
	36 1325.6	1220.0	1000.1	1720.0				
SPLITT	EK 44 1574.1	N.G.	N.G.	1579.2	1577.2	1695.8	1585.1	1502 • 1
	1493.6	N.O.	11.00	131702	17/102	109740	170701	170241
245 BOTTOM	1493.0							
301-3	08 N.G.	1385.3	1444.2	1472.3	1481.5	1506.3	1583.6	1618.9
309	1628.8	130303	144462	141263	140167	1700.7	1707.0	1010.7
309	1020.0							
		CTATIC	DDECCIID	E COEFE	CIENTS.	CD		
NACELLE	TOP	STATIC	PKLJJUK	L COLFF	CIENTS	CF		
	17 0.137	-0.132	N.G.	N.G.	N.G.	1.128	1.128	1.128
	20 N.G.		1.127		.,,,,,,		10169	14120
NACELLE		1,110						
	28 0.669	0.378	0.086	1.128	1.128	1.128	1.128	N.G.
	1.128		- • - •	5	20.00		_ •	
CANOPY								
	34 1.128	1.128	N.G.	1.128	1.128			
	CENTER L			_				
	2 1.128	1.128	1.128	1.127	1.127	1.128	1.128	1.128
CANOPY	SIDE							
343-34	4 1.128	1.128						

## 1/5 SCALE MODEL INLET PRESSURE SURVEY CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 1 BASIC CANOPY, 30E OVAL INLET, LONG SPLITTER, PT 23 BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA 0.00	BETA 4.00	M0	M/M*	LP 2•51	RF 2•5		
NR	PTC				K	L	WC	M/MO
0.996		•6 1544			4.74	5.79		1.011
		TOTA	L PRESSU	JRE RATIO	DS. PT/P	TO		
INLET								
	08 0.9694		0.9987	0.9536	0.9758	0.9914	0.9992	N.G.
	16 1.0004		1.0007	1.0005	1.0004	1.0004	1.0005	1.0006
	24 1.0004	-	1.0005	N.G.	1.0004	1.0005	1.0004	1.0004
	30 1.0004	-	1.0006	1.0007	0.9995	1.0008		
_	RY LAYER							
131-1:			0.9998	0.9998	0.9997	N.G.	0.9997	0.9997
	42 0.9995		0.9995	0.9995				
	RY LAYER							
143-14	44 0.9996	0.9994						
		7 411	ET CTATI	C DDECCI	JRES PS			
RAKE W		INL	EI SIAII	C PRESSU	JRES PS			
	466 06 1554.9	N.G.	1604.1	1589.4	1490.5	1482.4		
RAKE BU		N.O.	1004.1	120704	149005	1402.4		
207-2		1417.4	1428.7	1412.1	1388•3	N.G.		
TOP		141104	142007	141201	130003	14.00		
	20 2003.3	1933.0	1719.8	1482.4	1385.5	1451.6	1486.0	1501.3
	24 1483.2		N.G.	1666.2	150505	143110	140000	150165
SIDE	140362	100341		100012				
225-23	32 1406.4	2093.1	1920.6	1715.3	1478.7	1438.0	1458.9	1446.2
233-23			1698.9	1777.1	14.001	143000	147007	1440.2
SPLITTE		130000	107007	1,,,,				
	4 1583.7	N.G.	N.G.	1584.9	1581.5	1692.4	1598.7	1522.2
245	1509.7	,,,,,,						
BOTTOM								
	08 N.G.	1636.2	1655.9	1654.9	1643.6	1578.1	1602.2	1634.4
309	1646.2						200202	10540
-								
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE								
310-3	17 -0.015	-0.295	N.G.	N.G.	N.G.	1.127	1.127	1.127
318-32	70 N.G.	1.127	1.127					
NACELL								
	80.608	-0.791	-1.072	1.127	1.127	1.127	1.127	N.G.
	1.127							
CANOPY								
	34 1.127		N.G.	1.127	1.127			
	CENTER L							
	2 1.126	1.126	1.126	1.127	1.127	1.127	1.127	1.127
CANOPY								
343-34	4 1.127	1.127						

RUN 1 BASIC CANOPY, 30E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RP		
	0.00	4.00	0.699		2.00		-	
NR	PTC		_		K	L	WC	M/M0
0.997	2107	•6 1627	•6 161	4.5	<b>3 • 5</b> 6	4.86	2.11	0.963
		TOT4		05 0451	0.5			
144.57	2445	IOIA	L PRESSU	RE RAIL	DS. PT/P	10		
INLET		0.6040		0.0457				A) C
	08 0.9746		0.9993	0.9657	0.9833	0.9941	1.0007	
	16 1.0006		1.0006	1.0008	1.0006	1.0012	1.0004	1.0012
	24 1.0008		1.0006	N.G.	1.0008	1.0008	1.0000	1.0010
	30 1.0007		1.0010	1.0008	1.0006	1.0008		
	RY LAYER			- 0000			0.0007	
131-1			0.9999	1.0000	1.0000	N.G.	0.9997	1.0000
_	1.0000		1.0000	0.9999				
	RY LAYER I							
143-14	44 1.0000	1.0000						
		INL	ET STATI	C RESSL	JRES. PS			
RAKE W								
	06 1636.1	N.G.	1678.2	1666.0	1582.2	1575.7		
RAKE BU								
	12 1503.1	1520.3	1530•5	1519.8	1500•3	N.G.		
TOP							. =	
	20 1973.8		1785.8	1580.2	1500.0	1553.9	1579.1	1588.7
221-22	24 1577.1	1741.1	N.G.	1727.0				
SIDE								
	32 1297.0	2111.3	1969.6	1790.8	1597.1	1579.6	1575.7	1552.3
233-23	36 1541.8	1658.4	1754.4	1823.3				
SPLITTE	ER							
237-24	44 1618.0	N.G.	N.G.	1619.7	1615.2	1749.6	1666.9	1601.7
245	1590.9							
BOTTOM								
301-30	08 N.G.	1702.4	1719.8	1719.1	1708.6	1655.1	1671.2	1697.1
- 0 -	1707.3							
		STATIC	PRESSUR	F COFFFI	CIENTS.	CP		
NACELLE	TOP	J.A.IC	, KEGGGK	_	CICITION	<b>C</b> .		
	7 -0.108	-0.368	N.G.	N.G.	N.G.	1.128	1.128	1.128
	20 N.G.		1.128			• • • • • • • • • • • • • • • • • • • •		
NACELLE			10120					
		-0.864	-1-139	1.128	1.127	1.127	1.128	N.G.
	1.127	<b>7 7 7 7 7</b>	/					
CANOPY								
		1.127	N.G.	1.128	1.128			
	CENTER L							
	2 1.128		1.128	1.128	1.128	1.128	1.128	1.128
CANOPY					- 4 1 2 0			150
	4 1.128	1.128						
J 7 J 7	10120	10160						

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 25 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA				LP			
					2.51			
NR OR		PSC			K	L 70	WC	M/MO
0.982	2074	• 6 1516	• 6 150	1.0	9.35	5.78	2.18	0.949
		7074		DE DATE	07.0	• •		
		IOIA	L PRESSU	RE RAIL	DS, PT/P	10		
INLET R		0.0054	0.0470	0.0003	0.0101			<b>N</b> C
	8 0.9545		0.9672				1.0005	N.G.
	6 0.9875		0.9781	0.9993	1.0001		0.9884	0.9543
	4 0.9818				0.9895		0.9851	0.9970
	0 0.9977		0.9906	0.9847	0.9893	0.9950		
	Y LAYER I							
	8 N.G.		1.0000	1.0000	0.9999	N.G.	0.9999	0.9998
	2 1.0000		1.0000	1.0000				
BOUNDAR	Y LAYER (	DUCT						
143-14	4 1.0000	1.0000						
		INL	ET STATI	C PRESSU	IRES PS			
RAKE WA	LL							
201-20	6 1530.4	N.G.	1576.7	1552.1	1467.4	1456.7		
RAKE BU	LLET							
207-21	2 1366.6	1388.3	1400.2	1383.3	1355.9	N.G.		
TOP								
	0 2020.2	1907.0	1651.5	1352.5	1222.6	1310.4	1401.0	1413.7
	4 1406.4	1656.6	N.G.	1643.9				
SIDE				20.00				
	2 1772.9	2079.2	1714.2	1456.1	1183.1	1251.1	1310.4	1322.3
	6 1330.7	1543.6	1663.1	1743.0				.,
SPLITTE		134360	1003.1	114300				
-	4 1505.8	N.G.	N.G.	1508.3	1504.1	1668.7	1571-0	1493.4
245	1482.1	1,000		150005	150401	10000.	17,100	147364
BOTTOM	140201							
	9 N.G.	1554.0	1571 5	1574.1	1564.3	1520.0	1570-5	1402 7
309		1770 6 9	17/107	17/401	170405	132980	131003	1602 • 7
309	1612.9							
			22566412	- 405-51	a			
		STATIC	PRESSUR	E COEFFI	CIENTS	CP		
NACELLE		0 160	AL C	41.00				
310-31			N.G.	N•G•	N.G.	1.170	1.170	1.170
318-32		1.170	1.170					
NACELLE								
321-32		-0.136	-0.474	1.170	1.170	1.170	1.170	N.G.
329	1.170							
CANOPY								
330-33	4 1.170	1.170	N.G.	1.170	1.170			
CANOPY	CENTER LI	INE						
335-34	2 1.170	1.170	1.171	1.170	1.170	1.170	1.170	1.170
CANOPY	SIDE							
343-34	4 1.170	1.170						

## INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 1 BASIC CANOPY, 30E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	_							
	ALPHA	BETA	MO	M/M*	LP	RP	BP OD F	
	0.00	0.02	0.799	0.912	2.00	2.00	OPE	N
NR 0 083					K		WC	M/M0
0.902	2014	• 4 1516	0.0 150	12 • 3	9.32	5.80	2.10	0.948
		TOTA	I DDESSI	IDE DATIC	OS. PT/P	T O		
INLET R	AVE	1014	IL PRESSO	ME KAII	739 F17F	. 0		
	8 0.9551	0.9855	0.9669	0.9087	0.9694	1.0002	1.0001	N.G.
	6 0.9875				1.0000			0.9542
	4 0.9813		0.9996		-		0.9847	
	0 0.9972		0.9902		*		00,041	047701
	Y LAYER		00,,02	00,01,				
	8 N.G.		1.0001	1.0001	1.0001	N.G.	1.0000	1.0000
	2 1.0000		1.0000		10001	11000	20000	200000
	Y LAYER		20000	20000				
	4 1.0001							
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	LL							
	6 1532.9	N.G.	1578.4	1554.9	1468.5	1458.1		
RAKE BU	LLET							
	2 1368.6	1389.7	1401.0	1384.1	1358.1	N.G.		
TOP								
213-22	0 2019.7	1909.0	1653.7	1358.1	1230.8	1316.3	1406 • 4	1416.6
221-22	4 1412.1	1657.4	N.G.	1645.3				
SIDE								
225-23	2 1772.3	2080.7	1715.9	1459.5	1188.7	1257.3	1313.8	1326.2
233-23	6 1334.7	1544.5	1663.9	1743.8				
SPLITTE	R							
237-24	4 1506.9	N.G.	N.G.	1509.7	1504.7	1669.6	1572 • 4	1493.9
245								
BOTTOM								
301-30	8 N•G•	1556.9	1572.3	1573.0	1565.1	1531.1	1572.3	1603.0
309	1614.0							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE								
310-31			N.G.	N.G.	N.G.	1.170	1.170	1.170
318-32	_	1.170	1.171					
NACELLE								
321-32		-0.137	-0.473	1.171	1.170	1.170	1.170	N.G.
329	1.171							
CANOPY		1 171	AL C	1 171	1 171			
330-33		1.171	N.G.	1.171	1.171			
	CENTER L		1 170	1 170	1 170	1 170	1 170	, , , , ,
335-34		1.170	1.170	1.170	1.170	1.170	1.170	1.170
CANOPY		1 170						
343-34	4 1.170	1.170						

## 1/5 SCALE MODEL INLET PRESSURE SURVEY CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 27 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RP		
NR	0.00 PTC	0•02 PSC			1•50 K	1•5 L	MC OPE	M/MO
0.985	2080		PS • 0 167		7.62	4.06	1.95	0.848
0.707	2000	•1 1002	•0 10,	0.0	7002	4400	1073	00010
		ATOT	L PRESSU	RE RATIO	S. PT/P	TO		
INLET F	RAKE							
101-10	08 0.9737	0.9909	0.9776	0.9255	0.9724	1.0001	1.0006	N.G.
109-11	16 0.9869	0.9428	0.9801	0.9998	1.0004	1.0000	0.9881	0.9569
117-12	24 0.9833	0.9987	0.9994	N.G.	0.9891	0.9715	0.9863	0.9972
125-13	30 0.9976	0.9965	0.9908	0.9853	0.9897	0.9953		
BOUNDAR	RY LAYER I							
131-13			=	0.9999	0.9999	N.G.	0.9999	0.9999
	2 0.9999		0.9998	0.9999				
	RY LAYER							
143-14	4 1.0000	1.0000						
		•		- 05566	.555			
5445		INL	ET STATI	CPRESSU	JRES. PS			
RAKE WA		N 6	1722 (	1700 E	1440 7	1420 2		
	6 1692.1	N.G.	1722.6	1708.5	1648.7	1638.2		
RAKE BU	2 1578.6	1592.2	1601.8	1595.3	1575.8	N.G.		
TOP	2 13/0.0	139202	1001.0	137363	171760	11.0.		
	20 1944.6	1997.1	1798.6	1577.5	1497.3	1558.9	1592.8	1612.0
	4 1606.6	1774.0	N.G.	1767.3	147163	177087	1772.00	1012.0
SIDE	.4 100080	1774.0	N. 60.	110163				
	2 1612.2	2105.2	1858•4	1666.2	1495.6	1525.6	1547.0	1555.5
	6 1556.6	1691.3	1779.7	1840.1				
SPLITTE	-	10,10,	2	10.001				
-	4 1581.5	N.G.	N.G.	1582.3	1578.6	1784.2	1709.7	1655.2
245	1647.0							
BOTTOM								
301-30	08 N•G•	1733.4	1730.9	1735.2	1719.9	1695.0	1714.0	1733.7
309	1741.9							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE			=			11 11-1-1	11 11	
		-0.324		N.G.	N.G.	1.169	1.169	1.169
	0 N.G.	1.169	1.169					
NACELLE		0.005	0.453					
		-0.295	-0.651	1.169	1.169	1.169	1.169	N.G.
	1.169							
CANOPY		1.169	N.G.	1.140	1.169			
	CENTER L			14109	1 4 10 7			
		1.169	1.169	1,160	1.160	1.160	1.169	1.140
CANOPY		1,10,	10107	10107	10107	1 . 10 /	14107	10107
	4 1.169	1.169						
'	/	- •						

### INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 1 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 28 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	0 6001	DART LATE	K DOCT O	FERT BO	in chaine,	o of that	<b>V</b> -	
	ALPHA	BETA	MO	M/M#	LP	RP	ВР	
		0.02			1.00		_	
NR	PTC	_			K	L	WC	M/MO
0.984		0 1871			5.69	2.16		
0.704	2010	•0 10/1	•0 107	202	7009	2 • 10	1047	00047
		TOTA	I DDESSI	DE DATIC	S. PT/P1	r n		
INLET	DAVE	1014	L PRESSO	KE KAIT	/31 P1/P			
_	08 0.9847	0.0935	0.9755	0.9440	0.9683	0.9987	1.0000	N.G.
	16 0.9828		0.9764	0.9988	0.9996	0.9987	0.9841	0.9552
	24 0.9789		0.9989	N•G•	0.9851	0.9634	0.9815	0.9959
	30 0.9962		0.9875			0.9938	047017	007737
	RY LAYER		0.7017	0.7700	019603	0 6 7 7 3 0		
	38 N.G.		0.9998	0.9998	0.9998	N.G.	0.9999	0.9999
					067770	N • G •	007777	069999
	42 0.9999		1.0000	1.0000				
	RY LAYER							
143-1	44 1.0000	1.0000						
		• * * *		c DD5664	IDEC - DC			
DAKE 11	A	INL	ET STATI	C PRESSU	JRES. PS			
RAKE W		~	1001 0	1002 0	1055 0	1044 0		
	06 1877.6	N.G.	1891.8	1883.0	1855.9	1846.9		
RAKE B		1025 1	1022	1001 1	1014			
	12 1818.6	1825.1	1832.2	1831.1	1814.4	N.G.		
TOP	20 1001 7	2075 0	1051 0	1002 0	17/0 0	3 706 A	1001 7	
	20 1801.7		1951.9	1802.8	1748.9	1785.0	1801.7	1812.7
_	24 1813.6	1915.8	N.G.	1915.5				
SIDE								
	32 1329.9		2002.4	1887.8	1782.5	1788.1	1797.7	1798.6
	36 1799.4	1869.2	1917.7	1952.8				
SPLITT								
	44 1661.1		N.G.	1661.4	1656.3	1921.1	1879.3	1853.4
245	1848.3							
BOTTOM								
301-3		_	1911.2	1907.6	1900•5	1883.6	1885.6	1894.8
309	1896.6							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELL	E TOP							
310-3	17 -0.341	-0.569	N.G.	N.G.	N.G.	1.171	1.171	1.171
318-3	20 N.G.	1.170	1.170					
NACELLI	E SIDE							
321-3	28 -0.356	-0.514	-0.869	1.171	1.170	1.170	1.170	N.G.
329	1.170							
CANOPY	SIDE							
	34 1.170		N.G.	1.170	1.170			
	CENTER L							
	42 1.170	1.170	1.169	1.170	1.170	1.170	1.171	1.171
CANOPY								
343-34	44 1.171	1.171						

RUN 1 BASIC CANOPY, 30E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA -0.01	BETA 0.02	M0 0•798	M/M* 0•373	LP 0•51	RP 0•5	T	
NR	PTC				K	L	WC	M/MO
0.937	1977		•1 191		1.44	0.61	0.89	0.388
06937	1771	• 5 1 7 0 2	•1 171	703	1044	0.01	0407	04,00
		TOTA	L PRESSU	RE RATIO	S. PT/P	TO		
INLET F	RAKE	, , ,				•		
	8 0.9280	0.9280	0.9297	0.9382	0.9390	0.9354	0.9347	N.G.
	6 0.9314		0.9406	0.9366	0.9348	0.9347	0.9330	0.9382
	4 0.9409		0.9358	N.G.	0.9354	0.9381	0.9400	0.9386
	0.9380		0.9388	0.9412	0.9415	0.9406		
	RY LAYER I							
131-13		1.0000	1.0000	1.0000	1.0000	N.G.	1.0000	1.0000
	2 1.0000	_	1.0001	1.0001				
	Y LAYER							
	4 1.0000	1.0000						
1.5		10000						
		INL	FT STATE	C PRESSU	JRES. PS			
RAKE WA	ALL							
	6 1907.4	N.G.	1910.5	1909.4	1899.5	1898.4		
RAKE BU								
	2 1882.0	1883.4	1885.4	1883.7	1870.2	N.G.		
TOP								
213-22	0 1958.8	1886.5	1687.8	1552.5	1575.7	1687.8	1738.0	1769.6
221-22	4 1787.1	1888.2	N.G.	1911.1				
SIDE								
225-23	2 1557.3	1941.9	1765.1	1679.0	1649.1	1721.1	1771.1	1797.3
233-23	6 1812.0	1875.8	1900.4	1916.7				
SPLITTE	R							
237-24	4 1600.8	N.G.	N.G.	1602.5	1596.3	1909.7	1896.7	1895.6
245	1893.6							
BOTTOM								
301-30	8 N.G.	1615.0	1717.6	1769.3	1810.9	1893.3	1903.0	1905.6
309	1906.6							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 0.046		N.G.	N.G.	N.G.	1.170	1.170	1.170
318-32	0 N.G.	1.170	1.170					
NACELLE	SIDE							
321-32	8 -0.162	-0.400	-0.720	1.170	1.170	1.170	1.170	N.G.
329	1.170							
CANOPY	SIDE							
	1.170	1.170	N.G.	1.170	1.170			
	CENTER L.							
335-34	2 1.170	1.170	1.170	1.170	1.170	1.170	1.170	1.170
CANOPY								
343-34	4 1.170	1.170						

RUN 2 BASIC CANOPY. 30E OVAL INLET. LONG SPLITTER.
PT 1 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

•	DOOM	,	N 00C1 C	or Entry Do			• -	
	ALPHA	BETA	МО	M/M*	LP	RP	вР	
		0.02					_	
NR		PSC				L		
		6 1559					=	
1000	2121		•0 155	, , ,	4073	2012		1.013
		TOTA	. DDECCI	IDE DATE	) DT/D'	<b>r</b> 0		
THET D	A V E	IOIA	L PRESSU	NE KALL	OS. PT/P	10		
INLET R		1.0004	0 0077	0.0622	1 0110	1.0125	1.0124	N.G.
				-	1.0118			
<del>-</del> -		1.0125		_	1.0121		1.0122	
		-		N.G.			1.0124	1.0124
	0 1.0121		1.0120	1.0125	1.0120	1.0125		
	Y LAYER F		5 0	0 0	D 0		0.0	0.0
					P.C.	N • G •	P.O.	P.O.
	2 P.O.		P.O.	P.O.				
	Y LAYER (							
143-14	4 P.O.	P.O.						
			_					
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA								
201-20	6 1570.4	N.G.	1619.0	1602.3	1508•6	1497.6		
RAKE BU	LLET							
207-21	2 1410.1	1429.3	1442.8	1426.7	1401.3	N.G.		
TOP								
213-22	U 2047.0	1942.8	1708.8	1438.3	1327.9	1403.3	1466.0	1482.3
221-22	4 1472.2	1698.3	N.G.	1682.0				
SIDE								
225-23	2 1860.7	2100.1	1744.4	1502.7	1261.0	1323.1	1362.1	1383.5
233-23	6 1389.7	1589.6	1705.4	1782.2				
SPLITTE			_					
	4 1604.3	N.G.	N.G.	1605.4	1601.8	1713.0	1615.6	1533.7
245	1523.0							
BOTTOM	172300							
301-30	8 N.G.	1567.7	1592.5	1610.9	1599.2	1570.5	1618.9	1652.9
309	1664.1	220.0.			201702			102107
547	100401							
		STATIC	DDESCHI	E COEFE	CIENTS.	CP		
NACELLE	TOP	SIAIL	PRESSUR	COLF!	CIEMIST	CF		
	7 0.074	-0.197	N.G.	N.G.	N.G.	P.O.	P.O.	P.O.
318-32		P.0.	P.0.	11000	11.00		7	
		P.0.	P • 0 •					
NACELLE		-0.121	-0.384	P.O.	P.O.	P.O.	P.O.	N.G.
321-32		-00121	-0.304	F • U •	F • • • •	F.U.	F • U •	14 • 0 •
329	P.O.							
CANOPY		P.O.	N.G.	P.O.	P.O.			
330-33			14.00	P•U•	P • U •			
	CENTER LI		P.O.	P.O.	ρ Λ	0.0	D. O	<b>D</b> 0
335-34		P.O.	F . U .	F•U•	P.O.	P.O.	P.O.	P.O.
CANOPY :		• •						
343-34	4 P.O.	P.O.						

### INLET PRESSURE SURVEY

1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 2 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

, ,		DANT CATE	K DOCT C	or Elea Do	iii choine	o or enar.		
	ALPHA	BETA	МО	M/M*	LP	RP	вР	
						2.50		
NR	PTC	PSC	PS	5B	K	L	WC	M/MO
0.994	2115	• 3 1582	.6 152	29.9	9.37	3.96	2.22	0.992
		TOTA	L PRESSU	JRE RATIO	DS. PT/P	TO		
INLET F								
	08 0.9430				1.0008	1.0011		
	16 1.0008			1.0010			1.0008	
	24 1.0008			N.G.		1.0008	1.0010	1.0008
	30 1.0008		1.0011	1.0011	1.0008	1.0011		
	RY LAYER I			= <b></b>				
	38 N.G.				0.8742	N.G.	0.9996	0.9981
	+2 0.9786		C.8788	0.8425				
	RY LAYER I							
143-14	4 0.8154	0.7280						
		7 811	CT CTATI	C DDECC	ישבר שר			
RAKE WA	XI I	INL	EI SIAII	IC PRESSU	JRES. PS			
	16 1558 4	1603.5	1626-1	N.G.	1542.3	N.G.		
RAKE BU		1003.5	102041	1100	174207	14.00		
	12 1399.7	1418.3	1429.6	1413.5	1389.0	NaGa		
TOP	12 13//01	141045	142700	141565	130700			
	20 2031.0	1885.9	N.G.	1349.7	1351.7	1434.4	1457.0	1486.7
	24 1512.6			1677.5	13210	113.0.	2	1 10001
SIDE		20710	2.000	101102				
	32 2109.5	1891.5	1535.8	1304.8	1371.5	1391.8	1398.8	1403.4
	6 1434.1	N.G.	1692.2	1758.6	_			
SPLITTE	R							
237-24	4 2130.1	N.G.	N.G.	1510.9	1486.1	1584.3	1576.7	1516.6
245	1506.1							
BOTTOM								
301-30	)& N.G.	1575.2	1594•4	1601.8	1596.7	1580.1	1633.5	1646.3
309	1645.3							
		STATIC	PRESSUR	RE COEFFI	CIENTS.	CP		
NACELLE		• • •					0	
310-31		- +	N.G.	N•G•	N•G•	-0.311	-0.326	N.G.
318-32		-C • 217	-0.138					
NACELLE		0.040	0.142	240	0 207	0.247	() 201	N 6
321-32		-0.069	-0.142	-0.249	-0.297	-0.347	-0.281	N.G.
3 <b>2</b> 9	-0.323							
CANOPY	SIDE N.G.	-0.344	N.G.	Nata	-0.141			
	CENTER LI		.,,0	14404	00141			
	2 0.576	-0.133	P.O.	P.O.	P.0.	P.O.	-0.056	0.154
CANOPY		J 4 2 2 2		. 300				U 1 1 7 4
		0.170						
J + J - J -		<b>447</b> 10						

RUN 3 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

NR		ALPHA	BETA			LP			
TOTAL PRESSURE RATIOS, PT/PTO	NR	0.00							
INLET STATIC PRESSURE NATION PT/PTO  INLET RAKE 101-108 0,9506 0,9873 0,9933 0,9143 1,0007 1,0011 1,0011 1,0011 125-130 1,0011 1,0012 1,0011 1,0012 1,0012 1,0012 1,0012 1,0012 1,0012 1,0011 1									
INLET RAKE			•••	• • • • • • • • • • • • • • • • • • • •			3607		
INLET RAKE									
101-108			TOTA	L PRESSU	RE RATIO	OS. PT/P	7 0		
109-116    1-0011	INLET F	RAKE							
117-124   1.0011   1.0012   1.0011   N.66   1.0011   1.	101-10	18 U.9506	0.9873	0.9933	0.9143	1.0007	1.0011	1.0011	N.G.
125-130 1.0011 N.G. 1.0013 1.0013 1.0011 1.0011  BOUNDARY LAYER RAKE 131-138 N.G. 0.9971 0.9740 N.G. 0.8736 N.G. 0.9997 0.9980 139-142 0.9771 0.9372 0.8781 0.8430  BOUNDARY LAYER DUCT 143-144 0.8173 0.7285   INLET STATIC PRESSURES, PS  RAKE WALL 201-206 16C1.6 1643.1 1663.4 N.G. 1585.2 N.G. RAKE BULLET 207-212 1455.6 1472.8 1483.5 1470.0 1448.5 N.G. TOP 213-220 2010.7 1918.1 N.G. 1419.2 1425.7 1491.7 1511.5 1536.9 221-224 1558.7 1728.1 1729.8 1709.1  SIDE 225-232 2099.9 1920.3 1590.0 1386.4 1440.6 1457.0 1465.5 1 233-236 1487.8 N.G. 1722.4 1784.0  SPLITTER 237-244 2130.7 N.G. 1722.4 1784.0  SPLITTER 237-244 2130.7 N.G. 1624.1 1636.1 1647.8 1638.4 1622.8 1667.8 1682.4 309 1680.8  STATIC PRESSURE COEFFICIENTS, CP  NACELLE TOP 310-317 N.G0.105 N.G. N.G. N.G0.319 -0.328 N.G. 318-320 N.G0.216 -0.137  NACELLE SIDE 321-328 N.G0.103 -0.165 -0.267 -0.311 -0.356 -0.284 N.G. 329 -0.322 CANOPY SIDE 330-334 N.G0.341 N.G. N.G0.136 CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O0.047 0.171 CANOPY SIDE				1.0010	1.0012	1.0011	1.0016	1.0012	1.0012
BOUNDARY LAYER RAKE 131-138 NaGO 0.9971 0.9972 0.8781 0.8430  BOUNDARY LAYER DUCT 143-144 0.8173 0.7285  TINLET STATIC PRESSURES, PS  RAKE WALL 201-206 16C1-6 1643-1 1663-4 NaGO 1585-2 NaGO RAKE BULLET 207-212 1455-6 1472-8 1483-5 1470-0 1448-5 NaGO 213-220 2010-7 1918-1 NaGO 1419-2 1425-7 1491-7 1511-5 1536-9 213-220 2010-7 1728-1 1729-8 1709-1  SIDE 225-232 2099-9 1920-3 1590-0 1386-4 1440-6 1457-0 1465-5 1 233-236 1487-8 NaGO 1722-4 1784-0 SPLITTER 237-244 2130-7 NaGO NaGO 1551-3 1529-7 1621-6 1613-7 1.88-7 245 1548-5 BOTTOM 301-308 NaGO 1624-1 1636-1 1647-8 1638-4 1622-8 1667-8 1682-4 309 1680-8  STATIC PRESSURE COEFFICIENTS CP  NACELLE TOP 310-317 NaGO -0.105 NaGO NAGO NAGO -0.319 -0.328 NaGO 318-320 NaGO -0.216 -0.137  NACELLE SIDE 321-328 NaGO -0.216 -0.137  NACELLE SIDE 321-328 NaGO -0.216 -0.137  NACELLE SIDE 321-328 NaGO -0.341 NaGO NAGO -0.311 -0.356 -0.284 NaGO 329 -0.322  CANOPY SIDE 330-334 NaGO -0.341 NaGO NAGO -0.136  CANOPY CENTER LINE 330-342 0.577 -0.132 P.OO P.OO P.OO P.OO -0.047 0.171		_	1.0012	1.0011	N.G.	1.0011	1.0011	1.0011	1.0011
131-138 N.G. 0.9971 0.9740 N.G. 0.8736 N.G. 0.9997 0.9980 139-142 0.9771 0.9372 0.8781 0.8430  BOUNDARY LAYER DUCT 143-144 0.8173 0.7285	125-13	0 1.0011	N.G.	1.0013	1.0013	1.0011	1.0011		
139-142									
BOUNDARY LAYER DUCT 143-144 0.8173 0.7285  INLET STATIC PRESSURES, PS  RAKE WALL 201-206 1601.6 1643.1 1663.4 N.G. 1585.2 N.G. RAKE BULLET 207-212 1455.6 1472.8 1483.5 1470.0 1448.5 N.G. TOP 213-220 2010.7 1918.1 N.G. 1419.2 1425.7 1491.7 1511.5 1536.9 221-224 1558.7 1728.1 1729.8 1709.1 SIDE 225-232 2099.9 1920.3 1590.0 1386.4 1440.6 1457.0 1465.5 1 233-236 1487.8 N.G. 1722.4 1784.0 SPLITTER 237-244 2130.7 N.G. 1722.4 1784.0 SPLITTER 237-245 1548.5 BOTTOM 301-308 N.G. 1624.1 1636.1 1647.8 1638.4 1622.8 1667.8 1682.4 309 1680.8  STATIC PRESSURE COEFFICIENTS, CP  NACELLE TOP 310-317 N.G0.105 N.G. N.G. N.G. N.G0.319 -0.328 N.G. 318-326 N.G0.216 -0.137 N.G. 10.137 N.G0.105 N.G. N.G. N.G0.311 -0.356 -0.284 N.G. 329 -0.322 CANOPY SIDE 330-334 N.G0.341 N.G. N.G0.136 CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O0.047 0.171 CANOPY SIDE						0.8736	N.G.	0.9997	0.9980
TINLET STATIC PRESSURES, PS   RAKE WALL   201-206   16C1-6   1643-1   1663-4   N.G.   1585-2   N.G.   RAKE BULLET   207-212   1455-6   1472-8   1483-5   1470-0   1448-5   N.G.   TOP   213-220   2010-7   1918-1   N.G.   1419-2   1425-7   1491-7   1511-5   1536-9   221-224   1558-7   1728-1   1729-8   1709-1   TSIDE   225-232   2099-9   1920-3   1590-0   1386-4   1440-6   1457-0   1465-5   1   233-236   1487-8   N.G.   1722-4   1784-0   TSPLITTER   237-244   2130-7   N.G.   N.G.   1551-3   1528-7   1621-6   1613-7   1.28-7   1548-5   1548-5   1607-6   1682-4   1636-1   1647-8   1638-4   1622-8   1667-8   1682-4   309   1680-8   TSTATIC   PRESSURE   COEFFICIENTS   CP   CP   CP   CP   CP   CP   CP   C				0.8781	0.8430				
RAKE WALL 201-206 16C1-6 1643-1 1663-4 No.G. 1585-2 No.G. RAKE BULLET 207-212 1455-6 1472-8 1483-5 1470-0 1448-5 No.G. TOP 213-220 2010-7 1918-1 No.G. 1419-2 1425-7 1491-7 1511-5 1536-9 221-224 1558-7 1728-1 1729-8 1709-1 SIDE 225-232 2099-9 1920-3 1590-0 1386-4 1440-6 1457-0 1465-5 1 233-236 1487-8 No.G. 1722-4 1784-0 SPLITTER 237-244 2130-7 No.G. No.G. No.G. 1551-3 1529-7 1621-6 1613-7 18-7 245 1548-5 BOTTOM 301-308 No.G. 1624-1 1636-1 1647-8 1638-4 1622-8 1667-8 1682-4 309 1680-8  STATIC PRESSURE COEFFICIENTS. CP NACELLE TOP 310-317 No.G0.105 No.G. No.G. No.G0.319 -0.328 No.G. 318-326 No.G0.216 -0.137 NACELLE SIDE 321-328 No.G0.216 -0.137 NACELLE SIDE 321-328 No.G0.103 -0.165 -0.267 -0.311 -0.356 -0.284 No.G. 329 -0.322 CANOPY SIDE 330-334 No.G0.341 No.G. No.G0.136 CANOPY CENTER LINE 330-334 No.G0.341 No.G. No.G0.136 CANOPY CENTER LINE 330-334 No.G0.132 P.O. P.O. P.O. P.O0.047 0.171 CANOPY SIDE									
RAKE WALL 201-206 16C1-6 1643-1 1663-4 N-G. 1585-2 N-G.  RAKE BULLET 207-212 1455-6 1472-8 1483-5 1470-0 1448-5 N-G.  TOP 213-220 2010-7 1918-1 N-G. 1419-2 1425-7 1491-7 1511-5 1536-9 221-224 1558-7 1728-1 1729-8 1709-1  SIDE 225-232 2099-9 1920-3 1590-0 1386-4 1440-6 1457-0 1465-5 1 233-236 1487-8 N-G. 1722-4 1784-0  SPLITTER 237-244 2130-7 N-G. N-G. 1551-3 1529-7 1621-6 1613-7 1.38-7 245 1548-5  BOTTOM 301-308 N-G. 1624-1 1636-1 1647-8 1638-4 1622-8 1667-8 1682-4 309 1680-8  STATIC PRESSURE COEFFICIENTS- CP  NACELLE TOP 310-317 N-G0.105 N-G. N-G. N-G. N-G0.319 -0.328 N-G. 318-326 N-G0.216 -0.137  NACELLE SIDE 321-328 N-G0.216 -0.137  NACELLE SIDE 321-328 N-G0.322  CANOPY SIDE 330-334 N-G0.341 N-G. N-G0.136  CANOPY CENTER LINE 335-342 0.577 -0.132 P-O. P-O. P-O. P-O0.047 0.171  CANOPY SIDE	143-14	4 0.8173	0.7285						
RAKE WALL 201-206 16C1-6 1643-1 1663-4 N-G. 1585-2 N-G.  RAKE BULLET 207-212 1455-6 1472-8 1483-5 1470-0 1448-5 N-G.  TOP 213-220 2010-7 1918-1 N-G. 1419-2 1425-7 1491-7 1511-5 1536-9 221-224 1558-7 1728-1 1729-8 1709-1  SIDE 225-232 2099-9 1920-3 1590-0 1386-4 1440-6 1457-0 1465-5 1 233-236 1487-8 N-G. 1722-4 1784-0  SPLITTER 237-244 2130-7 N-G. N-G. 1551-3 1529-7 1621-6 1613-7 1.38-7 245 1548-5  BOTTOM 301-308 N-G. 1624-1 1636-1 1647-8 1638-4 1622-8 1667-8 1682-4 309 1680-8  STATIC PRESSURE COEFFICIENTS- CP  NACELLE TOP 310-317 N-G0.105 N-G. N-G. N-G. N-G0.319 -0.328 N-G. 318-326 N-G0.216 -0.137  NACELLE SIDE 321-328 N-G0.216 -0.137  NACELLE SIDE 321-328 N-G0.322  CANOPY SIDE 330-334 N-G0.341 N-G. N-G0.136  CANOPY CENTER LINE 335-342 0.577 -0.132 P-O. P-O. P-O. P-O0.047 0.171  CANOPY SIDE				<b>-</b>	C DD5-5-	.DE 6 D =			
201-206 16C1.6 1643.1 1663.4 N.G. 1585.2 N.G.  RAKE BULLET 207-212 1455.6 1472.8 1483.5 1470.0 1448.5 N.G.  TOP 213-220 2010.7 1918.1 N.G. 1419.2 1425.7 1491.7 1511.5 1536.9 221-224 1558.7 1728.1 1729.8 1709.1  SIDE 225-232 2099.9 1920.3 1590.0 1386.4 1440.6 1457.0 1465.5 1 233-236 1487.8 N.G. 1722.4 1784.0  SPLITTER 237-244 2130.7 N.G. N.G. 1551.3 1529.7 1621.6 1613.7 18.7 245 1548.5 BOTTOM 301-308 N.G. 1624.1 1636.1 1647.8 1638.4 1622.8 1667.8 1682.4 309 1680.8  STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.105 N.G. N.G. N.G. N.G0.319 -0.328 N.G. 318-326 N.G0.216 -0.137  NACELLE TOP 310-317 N.G0.105 N.G. N.G. N.G0.319 -0.328 N.G. 329 -0.322  CANOPY SIDE 330-334 N.G0.341 N.G. N.G0.136  CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O0.047 0.171  CANOPY SIDE	DAVE U	-	INL	ET STATI	C PRESSU	DRES. PS			
RAKE BULLET 207-212 1455.6 1472.8 1483.5 1470.0 1448.5 N.G. TOP 213-220 2010.7 1918.1 N.G. 1419.2 1425.7 1491.7 1511.5 1536.9 221-224 1558.7 1728.1 1729.8 1709.1  SIDE 225-232 2099.9 1920.3 1590.0 1386.4 1440.6 1457.0 1465.5 1 233-236 1487.8 N.G. 1722.4 1784.0  SPLITTER 237-244 2130.7 N.G. N.G. 1551.3 1529.7 1621.6 1613.7 18.7 245 1548.5  BOTTOM 301-308 N.G. 1624.1 1636.1 1647.8 1638.4 1622.8 1667.8 1682.4 309 1680.8  STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.105 N.G. N.G. N.G. N.G0.319 -0.328 N.G. 318-326 N.G0.216 -0.137  NACELLE SIDE 321-328 N.G0.216 -0.137  NACELLE SIDE 321-328 N.G0.322  CANOPY SIDE 330-334 N.G0.341 N.G. N.G. N.G0.136  CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O0.047 0.171  CANOPY SIDE		<del></del> -	1442 1	14424	N: C	1505 0	۸۱ ۲		
207-212 1455.6 1472.8 1483.5 1470.0 1448.5 N.G.  TOP  213-220 2010.7 1918.1 N.G. 1419.2 1425.7 1491.7 1511.5 1536.9  221-224 1558.7 1728.1 1729.8 1709.1  SIDE  225-232 2099.9 1920.3 1590.0 1386.4 1440.6 1457.0 1465.5 1  233-236 1487.8 N.G. 1722.4 1784.0  SPLITTER  237-244 2130.7 N.G. N.G. 1551.3 1529.7 1621.6 1613.7 18.7  245 1548.5  BOTTOM  301-308 N.G. 1624.1 1636.1 1647.8 1638.4 1622.8 1667.8 1682.4  309 1680.8  STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP  310-317 N.G0.105 N.G. N.G. N.G. N.G0.319 -0.328 N.G.  318-326 N.G0.216 -0.137  NACELLE SIDE  321-328 N.G0.103 -0.165 -0.267 -0.311 -0.356 -0.284 N.G.  229 -0.322  CANOPY SIDE  330-334 N.G0.341 N.G. N.G. N.G0.136  CANOPY CENTER LINE  335-342 0.577 -0.132 P.O. P.O. P.O. P.O0.047 0.171  CANOPY SIDE			1643.1	1003.4	N•G•	1585 • 2	N.G.		
TOP 213-220 2010.7 1918.1 N.G. 1419.2 1425.7 1491.7 1511.5 1536.9 221-224 1558.7 1728.1 1729.8 1709.1 SIDE 225-232 2099.9 1920.3 1590.0 1386.4 1440.6 1457.0 1465.5 1 233-236 1487.8 N.G. 1722.4 1784.0 SPLITTER 237-244 2130.7 N.G. N.G. 1551.3 1529.7 1621.6 1613.7 18.7 245 1548.5 BOTTOM 301-308 N.G. 1624.1 1636.1 1647.8 1638.4 1622.8 1667.8 1682.4 309 1680.8  STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.105 N.G. N.G. N.G0.319 -0.328 N.G. 318-326 N.G0.216 -0.137  NACELLE SIDE 321-328 N.G0.103 -0.165 -0.267 -0.311 -0.356 -0.284 N.G. 329 -0.322 CANOPY SIDE 330-334 N.G0.341 N.G. N.G0.136 CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O0.047 0.171 CANOPY SIDE			3.470.0	1462 5	1470 0	1440 5			
213-220 2010.7 1918.1 N.G. 1419.2 1425.7 1491.7 1511.5 1536.9 221-224 1558.7 1728.1 1729.8 1709.1 SIDE  225-232 2099.9 1920.3 1590.0 1386.4 1440.6 1457.0 1465.5 1 233-236 1487.8 N.G. 1722.4 1784.0 SPLITTER  237-244 2130.7 N.G. N.G. 1551.3 1529.7 1621.6 1613.7 18.7 245 1548.5 BOTTOM 301-308 N.G. 1624.1 1636.1 1647.8 1638.4 1622.8 1667.8 1682.4 309 1680.8 STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.105 N.G. N.G. N.G. N.G0.319 -0.328 N.G. 318-326 N.G0.216 -0.137 NACELLE SIDE 321-328 N.G0.216 -0.137 NACELLE SIDE 321-328 N.G0.0103 -0.165 -0.267 -0.311 -0.356 -0.284 N.G. 329 -0.322 CANOPY SIDE 330-334 N.G0.341 N.G. N.G. N.G0.136 CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O0.047 0.171 CANOPY SIDE		2 1455.6	14/2.8	1483.5	1470.0	1448.5	N.G.		
221-224 1558.7 1728.1 1729.8 1709.1  SIDE 225-232 2099.9 1920.3 1590.0 1386.4 1440.6 1457.0 1465.5 1 233-236 1487.8 N.G. 1722.4 1784.0  SPLITTER 237-244 2130.7 N.G. N.G. 1551.3 1528.7 1621.6 1613.7 18.7 245 1548.5  BOTTOM 301-308 N.G. 1624.1 1636.1 1647.8 1638.4 1622.8 1667.8 1682.4 309 1680.8  STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.105 N.G. N.G. N.G0.319 -0.328 N.G. 318-320 N.G0.216 -0.137  NACELLE SIDE 321-328 N.G0.103 -0.165 -0.267 -0.311 -0.356 -0.284 N.G. 329 -0.322  CANOPY SIDE 330-334 N.G0.341 N.G. N.G0.136  CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O0.047 0.171  CANOPY SIDE		0 2010 7	1018 1	AL C	1/10 2	1/25 7	1401 7	1611 6	1524 0
SIDE  225-232 2099.9 1920.3 1590.0 1386.4 1440.6 1457.0 1465.5 1  233-236 1487.8 N.G. 1722.4 1784.0  SPLITTER  237-244 2130.7 N.G. N.G. 1551.3 1528.7 1621.6 1613.7 18.7  245 1548.5  BOTTOM  301-308 N.G. 1624.1 1636.1 1647.8 1638.4 1622.8 1667.8 1682.4  309 1680.8  STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP  310-317 N.G0.105 N.G. N.G. N.G0.319 -0.328 N.G.  318-326 N.G0.216 -0.137  NACELLE SIDE  321-328 N.G0.103 -0.165 -0.267 -0.311 -0.356 -0.284 N.G.  329 -0.322  CANOPY SIDE  330-334 N.G0.341 N.G. N.G0.136  CANOPY CENTER LINE  335-342 0.577 -0.132 P.O. P.O. P.O. P.O0.047 0.171  CANOPY SIDE						142501	1491 6 7	151105	100009
225-232 2099.9 1920.3 1590.0 1386.4 1440.6 1457.0 1465.5 1 233-236 1487.8 N.G. 1722.4 1784.0  SPLITTER 237-244 2130.7 N.G. N.G. 1551.3 1528.7 1621.6 1613.7 18.7 245 1548.5  BOTTOM 301-308 N.G. 1624.1 1636.1 1647.8 1638.4 1622.8 1667.8 1682.4 309 1680.8  STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.105 N.G. N.G. N.G0.319 -0.328 N.G. 318-326 N.G0.216 -0.137  NACELLE SIDE 321-328 N.G0.103 -0.165 -0.267 -0.311 -0.356 -0.284 N.G. 329 -0.322  CANOPY SIDE 330-334 N.G0.341 N.G. N.G0.136  CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O0.047 0.171  CANOPY SIDE		4 1556.7	1/2001	1729.0	1709.1				
233-236 1487.8		2 2000	1020 2	1500 0	1296 /	1440 4	1/57 0	1445 5	,
SPLITTER 237-244 2130.7 N.G. N.G. 1551.3 1529.7 1621.6 1613.7 1.28.7 245 1548.5  BOTTOM 301-308 N.G. 1624.1 1636.1 1647.8 1638.4 1622.8 1667.8 1682.4 309 1680.8  STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.105 N.G. N.G. N.G0.319 -0.328 N.G. 318-326 N.G0.216 -0.137  NACELLE SIDE 321-328 N.G0.103 -0.165 -0.267 -0.311 -0.356 -0.284 N.G. 329 -0.322 CANOPY SIDE 330-334 N.G0.341 N.G. N.G0.136  CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O0.047 0.171  CANOPY SIDE						1440.6	1457.0	140505	1
237-244 2130.7 N.G. N.G. 1551.3 1528.7 1621.6 1613.7 1.28.7 245 1548.5 BOTTOM 301-308 N.G. 1624.1 1636.1 1647.8 1638.4 1622.8 1667.8 1682.4 309 1680.8 STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.105 N.G. N.G. N.G. N.G0.319 -0.328 N.G. 318-326 N.G0.216 -0.137 NACELLE SIDE 321-328 N.G0.103 -0.165 -0.267 -0.311 -0.356 -0.284 N.G. 329 -0.322 CANOPY SIDE 330-334 N.G0.341 N.G. N.G. N.G0.136 CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O. P.O0.047 0.171 CANOPY SIDE			N•G•	1722.4	1/84.0				
245	_		N. G	N. C	1661 2	1520 7	1421 4	1612 7	1 9 7
BOTTOM 301-308  N.G. 1624.1 1636.1 1647.8 1638.4 1622.8 1667.8 1682.4 309 1680.8  STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317  N.G0.105  N.G.  N.G.  N.G.  -0.319 -0.328  N.G. 318-326  N.G0.216 -0.137  NACELLE SIDE 321-328  N.G0.103 -0.165 -0.267 -0.311 -0.356 -0.284  N.G. 329  -0.322  CANOPY SIDE 330-334  N.G0.341  N.G.  N.G.  -0.136  CANOPY CENTER LINE 335-342  0.577 -0.132  P.O.  P.O.  P.O.  P.O.  -0.047  0.171  CANOPY SIDE			₩•0•	N.G.	199103	152501	1021.0	101347	1. 20 • /
301-308  N.G. 1624.1 1636.1 1647.8 1638.4 1622.8 1667.8 1682.4 309 1680.8    STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317  N.G0.105  N.G.  N.G.  N.G.  -0.319 -0.328  N.G. 318-326  N.G0.216 -0.137    NACELLE SIDE 321-328  N.G0.103 -0.165 -0.267 -0.311 -0.356 -0.284  N.G. 329  -0.322    CANOPY SIDE 330-334  N.G0.341  N.G.  N.G.  -0.136    CANOPY CENTER LINE		154645							
STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.105 N.G. N.G. N.G0.319 -0.328 N.G. 318-320 N.G0.216 -0.137  NACELLE SIDE 321-328 N.G0.103 -0.165 -0.267 -0.311 -0.356 -0.284 N.G. 329 -0.322  CANOPY SIDE 330-334 N.G0.341 N.G. N.G0.136  CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O0.047 0.171  CANOPY SIDE		R N.G.	1624.1	1626.1	1647.Ω	1628.4	1622 8	1447.9	1492.4
STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.105 N.G. N.G. N.G0.319 -0.328 N.G. 318-320 N.G0.216 -0.137  NACELLE SIDE 321-328 N.G0.103 -0.165 -0.267 -0.311 -0.356 -0.284 N.G. 329 -0.322  CANOPY SIDE 330-334 N.G0.341 N.G. N.G0.136  CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O0.047 0.171  CANOPY SIDE			102461	1030.1	1047.0	103004	1022.0	1007.0	1002 64
NACELLE TOP  310-317  N.G0.105  N.G.  N.G.  N.G.  -0.319  -0.328  N.G.  318-326  N.G0.216  -0.137  NACELLE SIDE  321-328  N.G0.103  -0.165  -0.267  -0.311  -0.356  -0.284  N.G.  329	307	1000.0							
NACELLE TOP  310-317  N.G0.105  N.G.  N.G.  N.G.  -0.319  -0.328  N.G.  318-326  N.G0.216  -0.137  NACELLE SIDE  321-328  N.G0.103  -0.165  -0.267  -0.311  -0.356  -0.284  N.G.  329			STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
310-317 N.G0.105 N.G. N.G. N.G0.319 -0.328 N.G. 318-326 N.G0.216 -0.137 NACELLE SIDE 321-328 N.G0.103 -0.165 -0.267 -0.311 -0.356 -0.284 N.G. 329 -0.322 CANOPY SIDE 330-334 N.G0.341 N.G. N.G. N.G0.136 CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O. P.O0.047 0.171 CANOPY SIDE	NACELLE	TOP							
318-320 N.G0.216 -0.137  NACELLE SIDE 321-328 N.G0.103 -0.165 -0.267 -0.311 -0.356 -0.284 N.G. 329 -0.322  CANOPY SIDE 330-334 N.G0.341 N.G. N.G0.136  CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O. P.O0.047 0.171  CANOPY SIDE			-0.105	N.G.	N.G.	N.G.	-0.319	-0.328	N.G.
NACELLE SIDE  321-328  N.G0.103 -0.165 -0.267 -0.311 -0.356 -0.284  N.G.  329  -0.322  CANOPY SIDE  330-334  N.G0.341  N.G.  N.G0.136  CANOPY CENTER LINE  335-342  0.577 -0.132  P.O. P.O. P.O. P.O. P.O0.047  0.171  CANOPY SIDE									
321-328 N.G0.103 -0.165 -0.267 -0.311 -0.356 -0.284 N.G. 329 -0.322 CANOPY SIDE 330-334 N.G0.341 N.G. N.G0.136 CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O. P.O0.047 0.171 CANOPY SIDE									
329 -0.322 CANOPY SIDE 330-334 N.G0.341 N.G. N.G0.136 CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O0.047 0.171 CANOPY SIDE			-0.103	-0.165	-0.267	-0.311	-0.356	-0.284	N.G.
CANOPY SIDE  330-334  N.G0.341  N.G.  N.G0.136  CANOPY CENTER LINE  335-342  0.577  -0.132  P.O.  P.O.  P.O.  P.O.  P.O.  -0.047  0.171  CANOPY SIDE	329	-0.322							
330-334 N.G0.341 N.G. N.G0.136  CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O. P.O0.047 0.171  CANOPY SIDE									
CANOPY CENTER LINE 335-342 0.577 -0.132 P.O. P.O. P.O. P.O. P.O0.047 0.171 CANOPY SIDE			-0.341	N.G.	N.G.	-0.136			
CANOPY SIDE			NE						
				P.O.	P.O.	P.U.	P. 0.	-0.047	0.171
343-344-0.043 0.184	CANOPY	SIDE							
	343-34	4 -0.043	0.184						

RUN 3 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA 0.00			M/M* 0•775	LP 1•50						
NR		PSC	_			L	WC	M/MO			
0.998	2124	•3 1780	•7 175	2.6	5.14	2.68	1.90	0.849			
	TOTAL PRESSURE RATIOS. PT/PTO										
INLET R											
	8 0.9786		0.9988	0.9500	1.0010	1.0011		N.G.			
	6 1.0011		1.0011	1.0013	1.0010	1.0012	1.0011	1.0011			
	4 1.0011			N.G.	1.0010	1.0011	1.0011	1.0011			
	0 1.0010	N.G.	1.0008	1.0011	1.0010	1.0008					
	Y LAYER		0 0435	<b>A</b> 1 C	0.0703	AL C	0.0003	0 0056			
	8 N.G.		0.9625		0.8702	N • G •	0.9993	0.9956			
	2 0.9661 Y LAYER		0.8728	0.8444							
	4 0.8221										
145-14	4 0.0221	0.1295									
		TNI	ET STATI	C DRESSI	JRES. PS						
RAKE WA	1 1	1110	CI SIXII	C FILESSI	TREST FS						
	6 1768.4	1794.4	1808.5	N.G.	1751.5	N.G.					
RAKE BU						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
	2 1669.9	1680.3	1688.3	1681.5	1666.5	N.G.					
TOP											
	0 1883.4	2031.6	N.G.	1671.3	1663.1	1699.8	1707.5	1722.4			
	4 1735.4	1847.5	1849.2	1835.9							
SIDE	•										
	2 2020.6	2037.5	1813.1	1667.1	1682.9	1681.8	1674.4	1675.8			
233-23		N.G.	1841.6	1887.9							
SPLITTE	R										
237-24	4 2130.4	N.G.	N.G.	1722.1	1710.8	1770.7	1765.1	1728.3			
245	1720.2										
BOTTOM											
301-30	8 N.G.	1795.4	1796.5	1796.5	1791.9	1777.8	1804 • 1	1812.8			
309	1814.6										
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP					
NACELLE							A 5.3	ī			
	N•G•			N•G•	N.G.	-0.367	-0.343	N.G.			
	0 N•G•	-0.220	-0.139								
NACELLE				0.040	7.0	•					
321-32		-0.273	-0.272	-0.348	-0 • 378	P.0.	-0.301	N.G.			
329	-0.329										
CANOPY		-0.340	N G	N•G•	-0-119						
	4 N.G. CENTER L		14.0.	NOGO	-0.119						
	2 0.577		P.O.	P.O.	P.O.	<b>D</b> . O .	-0.009	0.245			
CANOPY		0.193				F • U •	V . UU7	0 • 2 4 5			
=	4 -0.011	0.241									
J+J J+	. 0.011	00547									

## INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 5 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA 0.00	BETA 0.00	M0 0• <b>69</b> 9	M/M* 0•590	LP 1•00	RP 1•0	-	
NR	PTC	PSC	-		K	L	WC	M/MO
1.000	2131	•3 1950	•6 193	7.2	2.00	1.44	1.45	0.646
		TOT 4		.D		• •		
		IOIA	L PRESSU	IKE KATI	OS. PT/P	10		
INLET R		0.0000		0.0010			1 0005	AL C
	8 0.9958		1.0002	0.9818	1.0011	1.0012	1.0005	N.G.
109-11	6 1.0011 4 1.0012	1.0000 1.0014	1.0011	1.0016	1.0013	1.0018	1.0012	1.0012
	0 1.0013	N.G.	1.0011	N•G• 1•0013	1.0011 1.0014	1.0016	1.0012	1.0013
	Y LAYER F		1.0011	1.0013	1.0014	1.0013		
	8 NoGo	0.9705	0.9331	N.G.	0.8617	N.G.	0.9974	0.9822
	2 0.9376	0.9013	0.8628	0.8457	0.0017	14.0.	007714	0.7022
	Y LAYER (		0.0020	000427				
	4 0.8239							
143 14	4 0 0 0 2 3 7	0 1 1 2 7 2						
		INI	ET STATI	C PRESSI	JRES. PS			
RAKE WA	ιī	2.10	er otar.	C				
	6 1944.1	1958.5	1965.3	N.G.	1934.5	N.G.		
RAKE BU								
	2 1896.1	1899.8	1903.7	1902.3	1890.2	N.G.		
TOP	-							
213-22	0 1623.3	2121.7	N.G.	1931.7	1910.5	1919.8	1917.5	1922.6
221-22	4 1926.9	1983.3	1985.0	1979.1				
SIDE								
225-23	2 1789.1	2129.6	2041.8	1950.0	1931.9	1920.4	1914.2	1907.1
233-23	6 1908.5	N.G.	1979.7	2004.5				
SPLITTE	R							
237-24	4 2132.4	N.G.	N.G.	1917.3	1910.8	1941.5	1938.7	1919.5
245	2130.2							
BOTTOM								
301-30		1988.0	1971.9	1960.9	1959•1	1947.1	1959.6	1965.8
309	1966.0							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	-							
		-1.039		N•G•	N.G.	P.O.	-0.367	N.G.
318-32		<b>-</b> 0 <sub>•</sub> 226	-0.143					
NACELLE	_				• •			
321-32		-0.607	-0.486	P.O.	P.O.	P.0.	-0.321	N.G.
329								
CANOPY		O 227	Ni C	AL C	-0.094			
330-33		-0.337	N . U .	N O O	-0.000			
	CENTER LI		Ρ.Λ	P - O	P.O.	p. 0.	0.059	0.350
CANOPY		-00129	F • 0 •	F . U .	F . U .	FOU	0.039	0.350
	4 0.045	0.325						
J7J7J4	- 0.045	V + 323						

### INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT 1/5 SCALE MODEL CTOL FLIGHT REGIME RUN BASIC CANOPY , 24E OVAL INLET , LONG SPLITTER , BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE PT 6 BP ALPHA BETA MO M/M\* LP RP 0.51 0.50 -0.01 0.00 0.699 0.336 OPEN **PSC** PSB PTC WC M/MO NR K L 0.981 2033.9 2089.8 2031.9 0.92 0.35 0.82 0.368 TOTAL PRESSURE RATIOS. PT/PTO INLET RAKE 101-103 0.9748 0.9771 0.9780 0.9771 0.9814 0.9801 0.9788 N.G. 0.9813 109-116 0.9798 0.9804 0.9818 0.9802 0.9806 0.9816 0.9792 117 124 0.9816 0.9814 0.9808 N.G. 0.9821 0.9809 0.9816 0.9818 0.9827 125-130 0.9822 N.G. 0.9838 0.9832 0.9833 BOUNDARY LAYER RAKE N.G. 0.7469 0.7607 0.7490 131-138 N.G. N.G. 0.7795 0.7655 139-142 0.7544 0.7498 0.7503 0.7543 BOUNDARY LAYER DUCT 143-144 0.7609 0.7133 INLET STATIC PRESSURES, PS RAKE WALL 201-206 2032.2 2035.3 2037.8 N.G. 2030.5 N.G. RAKE BULLET 207-212 2012.7 2013.0 2016.1 2015.0 2003.9 N.G. TOP 213-220 1620.8 2069.2 N.G. 1923.5 1927.1 1947.8 1961.0 1978.2 221-224 1981.9 2031.9 2038.7 2040.4 SIDE 225-232 1695.9 2058.2 2002.5 1954.8 1967.5 1974.9 1975.4 1985.6 233-236 1991.2 N.G. 2035.8 2046.0 SPLITTER N.G. 2016.6 237-244 2062.4 N.G. 2017.5 2027.1 2028.8 2131.0 245 BOTTOM 301-308 N.G. 1964.7 1988.8 2003.4 2009.8 2024.6 2032.3 2036 - 4 309 2037.1 STATIC PRESSURE COEFFICIENTS. NACELLE TOP 310-317 N.G. -0.911 N.G. N.G. N.G. P.0. P.0. N.G. -0.230 318-320 N.G. -0.145

7

1

NACELLE SIDE 321-328 N

CANOPY SIDE

335-342

CANOPY SIDE

329

N.G.

N.G.

0.581 -0.116

-0.335

CANOPY CENTER LINE

343-344 0.118

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE, P.O PRESSURE OVERFLOW, DATA INVALID.

-0.572

N.G.

P.O.

P.O.

N.G.

P.O.

P.O.

0.007

P.O.

P.O.

-0.255

-0.332

0.156

N.G.

-0.773

-0.322

0.069

## INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 3 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA	BETA 0.00	M0 0•698	M/M* U.350	LP 0.50	RP 0•5		
NR	PTC				K	L	WC	M/MO
1.001			.5 206		0.38	0.48		
		TOTA	L PRESSU	JRE RATIO	OS. PT/P	TO		
INLET F	RAKE							
101-10	08 0.9988	1.0002	1.0005	0.9977	1.0008	1.0005	1.0013	N.G.
109-13	16 1.0011	1.0016	1.0011	1.0013	1.0013	1.0014	1.0012	1.0016
117-12	24 1.0013	1.0014	1.0011	N.G.	1.0012	1.0012	1.0011	1.0013
125-13	30 1.0011	N • G •	1.0011	1.0014	1.0011	1.0011		
BOUNDAR	RY LAYER I	RAKE						
131-13	38 N.G.	0.9465	0.9228	N.G.	0.8715	N.G.	0.9948	0.9709
139-14	2 0.9268	0.8966	0.8692	0.8616				
BOUNDAR	RY LAYER I	DUCT						
143-14	4 0.8372	0.7310						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA								
	06 2071.7	2076.2	2078.2	N.G.	2068.0	N.G.		
RAKE BL								
	2055.6	2057•3	2058•4	2057.9	2047.7	N.G.		
TOP'								
	20 1351.4		N.G.	2088.1	2070.9	2070.3	2067.2	2067.8
	24 2068.0	2084•4	2084.4	2082.7				
SIDE								
	32 1256.6	2073.1	2132.7	2118.3	2099•4	2087.5	2078•2	2072.6
	36 2070.6	N.G.	2083.3	2091.8				
SPLITTE			A. 6					
	4 2133.3	N.G.	N.G.	2061.0	2059•3	2069.2	2068.9	2061.5
245	2060.7							
BOTTOM	_							
301-30		2103.1	2091.1	2085.2	2081.6	2074.2	2076.5	2078.8
309	2078.8							
		4-1-16	005550	5 60055		<b>c</b> D		
		STATIC	PRESSUR	E COEFF	CIENTS.	CP		
NACELLE			N. C	A) C		0.0	0 040	N 6
		-1.361 -0.232		N•G•	N.G.	P.U.	-0.360	N.G.
	0 N.G.	-0.232	-01154					
NACELLE		1 104	0 000	0.0	0.0	0.0	0.0	A) C
		-1.184	-0.000	F • U •	P.O.	P.O.	P.0.	N.G.
329								
CANOPY 330-33		-0.269	N.G.	N.G.	-0.043			
	CENTER LI		*****	1100	-00045			
	2 0.625		P.O.	PaOs	P.U.	-0.380	0.168	0.479
CANOPY		00021		, 504		V # 300	0.100	V • • 1 7
	4 0.137	0-424						
J+ J - J4	A COTOL	V • 424						

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 8 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	МО	M/M*	LP	RF		
-	<del>-</del> .	0.00			1.00			
NR	PTC	-		• •	K	L	WC	M/MO
1.000	2130	8 1946	•7 193	3.1	1.62	1.46	1.46	0.652
		TOTA	L PRESSU	RE RATIO	OS. PT/P	TO		
INLET F	RAKE							
101-10	8 0.9922	0.9988	1.0000	0.9850	1.0010	1.0012	1.0010	N.G.
109-11	6 1.0011		1.0008	1.0012	1.0011	1.0012	1.0007	1.0011
117-12	4 1.0008	1.0004	1.0007	N.G.	1.0008	1.0008	1.0011	1.0011
125-13	00 1.0008	N.G.	1.0008	1.0011	1.0008	1.0010		
BOUNDAR	Y LAYER F	RAKE						
131-13	18 N.G.	0.9982	0.9771	N.G.	0.8904	N.G.	1.0003	0.9992
139-14	2 0.9811	0.9454	0.8937	0.8665				
BOUNDAR	Y LAYER O	DUCT						
143-14	4 0.8398	0.7332						
		INL	ET STATI	C PRESSU	JRES PS			
RAKE WA	LL							
	6 1941.0	1954.2	1961.3	N.G.	1930.2	N.G.		
RAKE BL								
	2 1891.0	1895.0	1899.2	1896.6	1885.9	N.G.		
TOP		10,700	10,,00	10,000	100307	11000		
	0 1718.5	2107.8	N.G.	1906.0	1894•1	1907.9	1908.8	1913.9
	4 1919.2	1980.2	1981.1	1974.6	10,401	1,0,0,	1,000	1/1/0
SIDE	4 171702	170002	170101	17/400				
	2 1699.0	2131.8	2059.6	1965.8	1940.4	1925.2	1914.4	1905.7
233-23		N•G•	1976.3	2001.7	174004	172762	171444	190361
SPLITTE		14.0.0	19/003	200187				
	4 2132.1	N.G.	N.G.	1913.6	1906.5	1937.0	1934.8	1915.6
		N.O.	14.6.	191300	190005	1937.00	173460	191900
245	2131.0							
BOTTOM	0 1 6	1070 0	10// 2	10(0 (	105/ 2	1044 2	1057 2	10(2.7
301-30		19/0.0	1904.2	1960.4	1956.3	1944.5	1420 • 3	1902.7
309	1962.9							
					500.00			
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE			17 -2					
	7 N.G.	-0.420		N • G •	$N \bullet G \bullet$	-0.361	-0.330	N.G.
318-32		-0.224	-0.149					
NACELLE								
321-32		-0.810	-0.633	P.O.	P.0.	P.U.	-0.380	N.G.
329								
CANOPY								
330-33		-0.274	N.G.	N.G.	-0.091			
	CENTER LI							
335-34	2 0.624	-0.031	P.O.	P.O.	P.O.	P. 0.	0.063	0.371
CANOPY	SIDE							
343-34	4 0.049	0.337						

WALTER STATE OF THE STATE OF TH

RUN 3 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

ALPHA	BETA	MO	M/M*	LP	RF		
-3.89	0.00			1.50			
NR PTC	PSC			K	L	WC	M/MO
0.998 2126	•9 1774	• 0 174	1001	3.84	2.69	1.92	0.857
	***						
	IOIA	L PRESSU	RE RATIO	DS. PT/P	10		
INLET RAKE							1.7
101-108 0.9710		0.9996	0.9629		1.0011	1.0010	N.G.
109-116 1.0006	1.0002	1.0008	1.0008	1.0008	1.0012	1.0008	1.0011
117-124 1.0008	1.0011	1.0007	N.G.	1.0007	1.0011	1.0008	1.0010
125-130 1.0008	N.G.	1.0008	1.0008	1.0008	1.0010		
BOUNDARY LAYER I	RAKE						
131-138 N.G.	1.0000	0.9917	N.G.	0.8983	N.G.	1.0002	1.0001
139-142 0.9936	0.9658	0.9038	0.8641				
BOUNDARY LAYER !	DUCT						
143-144 0.8360	0.7317						
	INL	ET STATI	C PRESSU	JRES. PS			
RAKE WALL							
201-206 1762.5	1787.4	1801.8	N.G.	1744.5	N.G.		
RAKE BULLET				-			
207-212 1660.3	1670.8	1679.0	1671.9	1657.5	N.G.		
TOP							
213-220 1977.7	1978.0	N.S.	1610.6	1620.8	1671.6	1687.7	1703.0
221-224 1717.9	1842.7	1844.1	1830.6		10.100	200.0.	2,0300
SIDE	104201	104461	105000				
225-232 1968.9	2060.7	1843.3	1684.9	1687.7	1680.1	1667.1	1668.2
233-236 1676.7	N.G.	1836.5	1883.4	100.0.	100001		100012
SPLITTER	1100	103063	100344				
237-244 2131.8	N.G.	N.G.	1720.5	1707.2	1765.6	1759.1	1720.5
	14.00	14.0.	112005	110162	110780	112701	172005
BOTTOM	1702 4	1701 0	1702 2	1786•7	1770 1	1707 7	1000 4
301-308 N.G.	1/0364	1/91.0	1/9203	1/00+/	1770-1	119101	1808 • 4
309 1810.0							
	STATIC	PRESSUR	F COFEE	CIENTS.	CP		
NACELLE TOP		=	7.1				ī. a
310-317 N.G.	-	N.G.	N.G.	N.G.	-0.277	-0.304	N.G.
318-320 N.G.	-0.220	-0.147					
NACELLE SIDE							
321-328 N.G.	-0.445	-0.404	P.0.	P • O •	P.O.	-0.364	N.G.
329 -0.347							
CANOPY SIDE							
330-334 N.G.	-	N.G.	N.G.	-0.124			
CANOPY CENTER LI	_						
335-342 0.623	-0.034	P.O.	P.O.	P.O.	P.O.	-0.007	0.250
CANOPY SIDE							
343-344 -0.009	0.239						

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 10 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE.

	ALPHA	BETA	M0 0•700	M/M*	LP	RP	-	
	-	0.00			2•00		_	
NR 0•995	PTC 2119	PSC 1614	PS •6 156		K 8•82	L 3•73	WC 2•18	M/M0 0•974
0.995	2119	4 1014	•0 130	0.0	0.02	3013	2010	00914
		TOTA	DDESCH	DE DATIC	S. PT/P	T ()		
TALET D	AVE	IOIA	L PRESSU	KE KAIIC	731 P17P	10		
INLET R	8 0.9420	0.9876	0.0071	0.0122	1.0008	1.0010	1.0008	N.G.
_	6 1.0008		0.9971 1.0008	0.9133	1.0008	1.0010	1.0008 1.0008	1.0011
	4 1.0000			** -	1.0008			1.0001
					1.0008	1.0008	1.0011	1.0000
	O 1.CUO8 Y LAYER	N.G.	1.0010	1.0008	1.0007	1.0008		
			0.0054	N. C	0 0025	AL C	1 0002	1 0003
131-13			0.9956	N.G.	0.9025	N.G.	1.0002	1.0003
	2 0.9967	0.9745	0.9091	0.8629				
	Y LAYER I							
143-14	4 0.8309	0.7303						
		7 414	ET STATI	C DDESC!	JRES. PS			
DAKE WA		INL	FI SIAII	C PRESSU	DREST PS			
RAKE WA	. –	1622 0	1455 5	N. C	1574.5	AL C.		
	6 1592.6	1633.8	1655.5	N•G•	1576.5	N.G.		
RAKE BU		1450 0	1470 0	1/57 0	1425 0	N C		
	2 1442.3	1459.9	1470.9	1457.0	1435.0	N.G.		
TOP	0 2027 1	1042 2	AL C	1227 2	1261 2	1461 0	1494 1	1510 5
	0 2077.1	1842.2	N.G.	1337.3	1361•3	1461.0	1484•1	1513.5
	4 1538.3	1721.6	1723.6	1701.0				
SIDE	2 2040 2	1054 2	1421 2	1,05 1	14400	14474	1400 0	
	2 2069.2	1956.2	1631.2	1405.1	1442.3	1447.4	1439.2	1447.7
233-23		N.G.	1715.7	1780.0				
SPLITTE			A) C	1540 1	1501 1	1715 1	1407 0	1510 1
_	4 2131.8	N.G.	N.G.	1549.1	1521.1	1615.1	1607.0	1549.6
245	1538.3	1						
BOTTOM	0 1 6	1420 2	1626 2	1440	1/22 0	1400 0	1440 1	1474 0
301-30		1020.2	1033.3	1040.9	1633.0	1003.3	1660.1	1674.9
309	1674.1							
			5555415					
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE		0.070	A) C			0 201	0 200	A1 C
		0.078		N.G.	N.G.	-0.231	-0.289	N.G.
318-32		-0.216	-0.145					
NACELLE	_				5 5			4.1
321-32		-0.258	-0.289	P.O.	P.O.	P.O.	-0.344	N.G.
329	-0.339							
CANOPY		0 000	A1 C	A) _	0 141			
330-33		-0.281	N.G.	N•G•	-0.141			
	CENTER L		0.0	D 0		• •		
	2 0.623	-0.035	P.O.	P.O.	P.O.	P.O.	-0.044	0.173
CANOPY	SIDE	0 170						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

0.178

343-344 -0.040

# INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 11 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	LPHA	BETA 0.00	M0 0.700	M/M*	LP 2•50			
NR		PSC				L	WC	M/MO
0.994		5 1585		_		3.92		
		TOTA	L PRESSU	RE RATIO	S. PT/P	TO		
INLET RA	KE		_					
		0.9864	0.9970	0.9076	1.0008	1.0011	1.0007	N.G.
109-116	1.0008	0.9926	1.0010	1.0010	1.0006	1.0012	1.0008	1.0010
117-124	1.0007	1.0011			1.0006		1.0008	1.0011
125-130	1.0007	N.G.	1.0011	1.0011	1.0011	1.0010		
BOUNDARY								
131-138	N.G.	1.0003	0.9959	N.G.	0.9031	N.G.	1.0002	1.0002
		0.9753		0.8625				
BOUNDARY								
		0.7298						
		INL	FT STATI	C PRESSU	JRES. PS			
RAKE WAL	L							
201-206	_	1606.1	1628.7	N.G.	1545•7	N.G.		
RAKE BUL								
207-212	_	1421.5	1432.7	1416.4	1391.2	N.G.		
TOP								
213-220	2084.7	1823.5	N.G.	1297.8	1320.4	1427.9	1453.6	1484.7
221-224	_	1701.5	170201	1679.0				
SIDE		2.020						
225-232	2077.1	1942.4	1602.7	1363.0	1405.1	1411.9	1405.4	1415.0
	1441.8	N.G.	1695.9	1762.8				- 12200
SPLITTER		,,,,,		2.0200				
237-244	2132.7	N.G.	N.G.	1514.3	1489.8	1587.5	1578.2	1520.0
245	1509.0	,,,,,,						
BOTTOM	130760							
	N.G.	1596.1	1614.5	1618.4	1611.0	1585.4	1637.6	1650.1
309	1651.6							
30,	107100							
		STATIC	PRESSUR	F COFFFI	CIENTS.	CP		
NACELLE '	TOP					<b>.</b>		
310-317		0.096	N.G.	N.G.	N.G.	-0.227	-0.289	N.G.
318-320		_			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
NACELLE S								
321-328	N•G•	-0.240	-0.278	-0.369	P.O.	P.O.	-0.344	N.G.
329	-0.340	002.0	002.0	00307			00344	
CANOPY S								
330-334		-0.282	N.G.	NaG.	-0.145			
CANOPY CE								
335-342			P.O.	P.O.	P.O.	P. O.	-0.049	0.163
CANOPY S								
343-344		0,170						
J7J J77	~ ~ ~ ~ ~ ~	0 1 1 0						

RUN	3	BASIC CANOPY , 24E OVAL INLET , LONG SPLITTER ,
PT	12	BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

ALPHA	BETA	Мо	M/M*	LP	RP	<del>-</del>	
4.13	-0.02	0.701	0.905	2.51			
NR PTC		_	-	K	L	WC	M/MO
0.992 2114	•6 1580	.6 152	8.3	9.11	3.89	2.22	0.990
	IOIA	L PRESSU	RE RATIO	OS. PT/P	10		
INLET RAKE							å
101-108 0.9490		0.9870	0.9108	0.9996	1.0008	1.0010	N.G.
109-116 1.0007		1.0007	1.0008	1.0008	1.0012	1.0005	0.9982
117-124 1.0008		1.0007	N.G.	1.0006	1.0008	1.0010	1.0010
125-130 1.0007		1.0008	1.0008	1.0008	1.0011		
BOUNDARY LAYER		• • • • • •					
131-138 N.G.		0.9338	N.G.	0.8469	N.G.	0.9959	0.9822
139-142 0.9361	0.8955	0.8484	0.8222				
BOUNDARY LAYER							
143-144 0.7973	0.7220						
	• • • •			10=0			
5.45	INL	ET STATI	CPRESSU	JRES. PS			
RAKE WALL							
201-206 1555.0	1601.9	1623.9	N.G.	1541.7	N.G.		
RAKE BULLET	14.7 6	1407 7	1411 0	1005 /			
207-212 1396.9	1417.5	1427.7	1411.0	1385.6	N.G.		
TOP	1010	A. 6					
213-220 1972.6	1940.1	N.G.	1393.2	1375.1	1441.8	1461.5	1488.4
221-224 1513.5	1697.0	1699.3	1676.7				
SIDE	1006 5					1007 (	
225-232 2127.9	1836.5	1463.2	1247.0	1330.0	1389.3	1387.6	1397.5
233-236 1426.0	N.G.	1691.7	1755.8				
SPLITTER			1507.0		1500 0	1575 0	1515
237-244 2132.7	N.G.	N.G.	1507.9	1484.1	1583.0	1575.3	1515.2
245 1504.2							
BOTTOM	3544 7			1504 1	1533 4		3445 0
301-308 N.G.	1564.7	1281.8	1231.0	1586.1	15//04	1632.2	1645.2
309 1644.7							
NACELLE TOD	STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE TOP	-0 212	A) C	N C	N. C	0.0	-0.349	N C
310-317 N.G.			N•G•	N.G.	P.U.	-0.547	N.G.
318-320 N•G•	-0.209	-0.124					
NACELLE SIDE	0.003	0 027	0 140	0.304	0 267	0 227	A) C
321-328 N.G.	0.082	-0.02/	-04140	-0.174	-00231	-0.251	N.G.
329 -0.320							
CANOPY SIDE	0.0	AL C	AL-C	-0 122			
330-334 N.G.		N.G.	N•G•	-00132			
CANOPY CENTER L		<b>D</b> O	P.O.	P.O.	<b>D</b> - O -	-0.051	0.150
335-342 0.534	-00211	F.U.	P • U •	FOU	F • U •	-0.091	0.150
CANOPY SIDE	0 173						
343-344 -0.046	0.113						

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 13 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

ALPH		BETA -0.02	M0 0•700	M/M*	LP 2•00	RP 2•00	BP OPEN	[
NR	PTC				K	L	WC U.	M/MO
0.994	2118.			8 • <b>6</b>	8 • 45	3.55	2.15	0.960
00774	21100	2 10336	100	0.0	0043	3000	2417	04,00
		TOTAL	PRESSU	DE DATIO	S. PT/P1	*0		
THET DAKE		IOTAL	. PRESSU	KE KAIIC	75) PI/P	U		
INLET RAKE	0420	0 0001	0.000	0 0175	1 000/	1 0010	1 0011	N. C
101-108 0		0.9881	0.9892	0.9175	1.0006		1.0011	
109-116 1		0.9581	1.0010	1.0012	1.0011		1.0011	0.9988
117-124 1	_		1.0010		1.0011		1.0012	1.0012
125-130 1		N.G.	1.0010	1.0011	1.0011	1.0012		
BOUNDARY LA	-							
131-138			0.9297		0.8455	N.G.	0.9954	0.9792
139-142 0	9319	0.8921	0.8468	0.8223				
BOUNDARY LA	YER DI	UÇT						
143-144 0.	7996	0.7224						
		INLE	T STATIC	C PRESSU	JRES. PS			
RAKE WALL								
201-206 16	13.5	1652.4	1672.2	N.G.	1597.1	N.G.		
RAKE BULLET	-		_					
207-212 14		1486.4	1496.6	1484.1	1463.0	N.G.		
TOP								
213-220 19	38.4	1970.1	N.G.	1477.9	1461.8	1515.8	1530.4	1553.9
221-224 15		1736.0	1738.3	1719.1				
SIDE		113000	1.3003	111741				
225-232 21	22.5	1878.9	1538.9	1352.6	1425.4	1461.5	1463.0	1474.0
233-236 14		N•G•	1729.2	1789.1	146764	140107	140340	141480
	7701	N.O.	112702	1/0761				
SPLITTER	22.1	N C	A.	1550 0	1620 6	1420 0	1/22 0	1540 0
237-244 21		N.G.	N	1559.0	1539.5	1629.8	1622.8	1568.8
	58.7							
BOTTOM								
301-308	N.G.	1629.6	1640.6	1645.2	1642•2	1632.7	1675•4	1688.2
309 16	88.2							
		STATIC	PRESSURE	COEFFI	CIENTS.	CP		
NACELLE TOP								
310-317	N.G.	-0.270	N.G.	N.G.	N.G.	P.O.	-0.355	N.G.
318-320	N.G.	-0.212	-0.126					
NACELLE SID		-						
321-328		0.041	-0.047	-0.162	-0.213	-0.270	-0.244	N.G.
329 -0						· •		
CANOPY SIDE								
330-334		P.O.	N.G.	NaG.	-0.12A			
CANOPY CENT				.,,,,,				
335-342 O			P.O.	P.O.	P.O.	P.O.	-0-042	0.169
		0.210				,,,,	J 1 J 7 Z	00103
CANOPY SIDE		0.100						
343-344 -0	0037	A + 7 2 2						

### INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT 1/5 SCALE MODEL

CTOL FLIGHT REGIME

RUN	3	BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT	14	BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA		МО				_	
		-0.02			1.50	1.5		
NR		PSC			K	L		
0.997	2124	1790	•9 176	4.9	6.06	2.54	1.87	0.839
		TOTA	L PRESSU	JRE RATIO	DS. PT/P	70		
INLET F								
	08 0.9858	-	0.9975	0.9409		1.0008	1.0010	N.G.
	16 1.0008	-		1.0012	1.0011	1.0013	1.0008	0.9994
	24 1.0011	-	1.0008	N.G.	1.0008	1.C008	1.CO10	1.0010
125-13	30 1.0007	N.G.	0.9995	1.0010	1.0008	1.0011		
BOUNDAR	RY LAYER F	RAKE						
	88 N.G.	0.9647	0.9153	N.G.	0.8435	N.G.	0.9925	0.9676
139-14	2 4.9160	0.8823	0.8445	0.8257				
BOUNDAR	RY LAYER (	DUCT						
143-14	4 0.8063	0.7256						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	LL							
201-20	6 1778.1	1804.3	1817.6	N.G.	1763.7	N.G.		
RAKE BL								
2-7-21	2 1684.9	1693.9	1701.8	1695.9	1681.8	N.G.		
TOP								
213-22	1795.9	2066.6	N.G.	1716.2	1695.9	1722.2	1725.0	1736.6
221-22	4 1748.7	1856.3	1858.2	1845.5				
SIDE								
225-23	2 2067.5	2008.2	1774.1	1645.9	1676.1	1683.2	1678.1	1684.9
233-23	6 1696.5	N.G.	1850.3	1894.4				
SPLITTE	R							
237-24	4 2132.1	N.G.	N.G.	1732.0	1721.6	1780.0	1775.5	1739.4
245	1731.5							
BOTTOM								
301-30	8 N.G.	1814.1	1807.2	1804.6	1799.7	1788.5	1814.1	1822.2
309	1822.8							
		STATIC	PRESSUR	E COEFF	CIENTS.	CP		
NACELLE	TOP							
310-31	7 N.G.	-0.469	N.G.	N.G.	N.G.	P.O.	-0.367	N.G.
318-32	U N.G.	-0.213	-0.126					
NACELLE	SIDE							
321-32	8 N.G.	-0.114	-0.151	-0.242	-0.279	-0.309	-0.263	N.G.
329	-0.330							
CANOPY	SIDE							
330-33	4 NoGo	P.0.	N.G.	N.G.	-0.108			
CANOPY	CENTER LI	NE						
335-34	2 0.533	-0.216	P.O.	P.O.	P.O.	P.O.	-0.002	0.237
CANOPY	SIDE							
343-34	4 -0.006	0.239						

### INLET PRESSURE SURVEY 1/5 SCALE MODEL RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER. BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE RUN PT 15

	ALPHA 4•13	BETA -0.02	M0 0•698	M/M* 0•582	LP 1•00	RP	BP 01 OPE	
NR	PTC				K	L	WC	M/MO
0.999	2129		•5 194	_	2.68	1.38	1.43	0.638
	2.27	1,,,	• • • • • • • • • • • • • • • • • • • •		2.00	1430	1043	0000
		TOTA	I PRESSU	RF RATIO	S. PT/P	TO		
INLET	RAKE		Lincos			. •		
	08 0.9976	0.9980	0.9999	0.9747	1.0011	1.0011	1.0010	N.G.
109-1	-	-	1.0013	1.0014	1.0011	1.0014	1.0012	0.9998
	24 1.0010	-	1.0011	N.G.	1.0008	1.0011	1.0011	1.0011
	30 1.0011	N.G.	1.0008	1.0011	1.0011	1.0011		100011
	RY LAYER I		10000	100011	100011	100011		
131-1		0.9275	0.8812	N.G.	0.8357	N.G.	0.9693	0.9272
	42 0.8833	0.8579	0.8349	0.8261			00,0,5	007212
_	RY LAYER I		000347	000201				
	44 0.8056	-						
143-14	44 080030	001237						
		TAU	ET STATI	C PRESSI	JRES. PS			
RAKE WA	Δ1 t	1116	LI SIAII	C PRESSE	KEST PS			
	06 1948.0	1961.9	1968.6	N.G.	1939.3	N.G.		
RAKE BI	-	170167	170000	1100	173763	14.00		
	12 1900.9	1904.8	1906.5	1906.8	1896.6	N.G.		
TOP	1,000,	170400	170003	170000	10,000	1100		
	20 1549.9	2128.2	N.G.	1951.4	1922•6	1929.4	1925.7	1928.3
	24 1933.1	1985.9	1988.4	1982,8	172200	172764	192301	192063
	24 195561	170307	19004	190210				
SIDE	32 1879.4	2120.0	2016.6	1929.4	1921.8	1913.9	1900•9	1907.7
			1983.0		172100	191309	190009	190/1
233-23 SPLITTE		N.G.	140300	2007.3				
	4 2133.0	AL C	N.G.	1920.1	1913.9	1945.2	1942.7	1924.9
		N.G.	N.G.	192011	171307	194502	174201	172467
245	2131.0							
BOTTOM	)	2010 0	1085 /	1074 2	1066 6	1051 0	1062 2	1040 0
301-30		2010.0	1905.4	1974.2	1966.5	1921.9	190302	1900.0
309	1968.6							
			20556442		415456			
		STATIC	PRESSUR	F COFFF!	CIENTS,	Ch		
NACELLE		1 251	A. C	<b>N</b> (	N. C	<b>5</b> 0	0.0	A1 C
	17 N•G•			N.G.	N.G.	P.U.	P.O.	N.G.
	0 N.G.	-0.217	-0.129					
NACELLE		0 007	0.005	(: 075	5 6	0 010	0 071	A
	8 N.G.	-0.397	-0.325	-0.375	P.O.	-0.369	-0.276	N.G.
329	* ·							
CANOPY			AL C		. 0 . 0 . 3 .			
330-33		P.O.	N.G.	N.G.	-0.0/1			
	CENTER LI		D 0	0.0	0 0	0.0	0 010	
	2 0.534	-0.213	P.U.	P.0.	P.O.	P. U.	0.069	0.322
CANOPY	-	0 -0						
343-34	4 0.055	0.304						

RUN 3 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

•

	ALPHA	BETA	МО	M/M*	LP	RP	вР	
	4.13	-0.02	0.699	0.335	0.51	0.5	7 OPE	N
NR	PTC	PSC	PS	В	K	L	WC	M/MO
0.956	2037	0 1979	9 198	4.5	1.63	0.33	0.82	0.367
		TOTA	L PRESSU	RE RATIO	S. PT/P	ТО		
INLET F	RAKE							
	8 0.9510	0.9483	0.9475	0.9534	0.9601	0.9575	0.9552	N.G.
	6 0.9478		0.9599	0.9587	0.9564	0.9534	0.9492	0.9527
	4 0.9603		0.9581	N.G.	0.9515	0.9538	0.9607	0.9604
_	0.9607		0.9568	0.9568	0.9625	0.9631		
	RY LAYER				00,025	00,000		
131-13		0.6904	0.6962	N.G.	0.7072	N.G.	0.6778	0.6832
	2 0.6889		0.7026	0.7072				***************************************
	Y LAYER		001020	001012				
	4 0.7112	0.7033						
1-3-1-	00/112	0.1033						
		TALL	ET STATI	C DDFSSI	RES. PS			
RAKE WA	. 1 - 1	1145	E SIAIL	C PRESSE	KEST PS			
	6 1976.6	1980.5	1983.3	N.G.	1979•1	N.G.		
RAKE BU		190000	190363	11.0.	13/301	14.0.		
	2 1954.5	1957.9	1960.2	1955.4	1947.8	N.G.		
TOP	2 173463	193109	190002	132204	194760	11.0.		
	0.0 1702 6	2022 7	AL C	1702 0	1714 0	1770 4	1011 1	1020 2
	20 1792.5	2023.7	N.G.	1703.0	1714.8	1778.6	1811.1	1839.3
	24 1862.8	1959.6	1975.4	1983.0				
SIDE	105/ 5	1010 3			. 70/ 0			
225-23		1948.3	1773.5	1710.3	1784•3	1826.3	1847.0	1868.4
233-23		N.G.	1968.9	1983.0				
SPLITTE			š. a					
237-24		N.G.	N.G.	1955.1	1959.0	1972.9	1976.6	1970.3
245	1971.2							
BOTTOM			.000					
301-30		1739.6	1802.6	1841.4	1803.9	1929 • 4	1962.9	1972.7
309	1979.3							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE								
310-31	7 N.G.	-0.767	N.G.	N.G.	N.G.	P.O.	P.O.	N.G.
318-32	0 N.G.	-0.221	-0.130					
NACELLE	SIDE							
321-32	8 N.G.	-0.365	-0.359	P.O.	P.O.	-0.375	-0.251	N.G.
329	-0.304							
CANOPY	SIDE							
330-33		-0.368	N.G.	N.G.	0.023			
	CENTER L							
335-34	2 0.539	-0.196	P.O.	P.O.	P.O.	-0.121	0.066	-0.024
CANOPY	SIDE							
21.2-21	. 0 029	-0 164						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.

N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

343-344 0.038 -0.164

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 17 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	MU	M/M*	LP	RP				
ALD.	0.11	-4.04	0.699		0.51					
NR	PTC			_	K	L	WC	M/M0		
1.000	2131	3 2013	•6 206	0002	0.67	0 • 45	0.84	0.377		
TOTAL PRESSURE RATIOS. PT/PTO										
INLET R		( - com (				- 0000		<b>A</b> 1. C		
	8 0.9968		0.9982	0.9944	1.0008	1.0008	1.0008	N.G.		
	6 1.0008		1.0007	1.0011	1.0008	1.0011	1.0008	1.0010		
	4 0.9998	1.0008	1.0006	N.G.	1.0006	1.0006	1.0006	1.0007		
	0 1.0006	N.G.	1.0007	1.0008	1.0007	1.0010				
	Y LAYER F									
131-13			0.8683	N.G.	0.8399	N.G.	0.9469	0.8995		
	2 0.8614	0.8399	0.8279	0.8279						
	Y LAYER I									
143-14	4 0.8183	0.7250								
		INL	ET STATI	C PRESSU	JRES. PS					
RAKE WA										
	6 2072.6	2076.2	2077.6	N.G.	2068.0	N.G.				
RAKE BU										
	2 2055.6	2057.3	2058•4	2058.2	2048.6	Ñ•G•				
TOP										
	U 1391.8	2126.8	N.G.	2063.5	2041.2	2043.8	2042•9	2045•7		
	4 2048.8	2083.6	2084.1	2082.7						
SIDE										
225-23		2131.0	2079.6	2033.0	2031.3	2031.3	2030.8	2034•2		
	6 2037.3	N.G.	2080.5	2089•2						
SPLITTE										
	4 2129.6	N.G.	N.G.	2083.6	2075•4	2077•4	2071.4	2064.1		
245	2131.0									
BOTTOM										
		2089.0	2069.4	2062.2	2057.8	2054.3	2070.9	2077.3		
309	2077.8									
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP				
NACELLE										
310-31		-1.412		N.G.	N.G.	P.O.	P.O.	N.G.		
318-32	0 N.G.	-0.245	-0.159							
NACELLE										
		-0.277	-0.224	-0.281	-0.296	-0.301	-0.233	N.G.		
329	-0.318									
CANOPY SIDE										
	4 N.G.		N.G.	N•G•	-0.014					
	CENTER LI									
335-34	2 0.569	-0.132	P.O.	P.O.	P.O.	P.O.	0.166	0.413		
CANOPY										
343-34	4 0.144	0.402								

RUN	3	BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER,
PT	18	BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

		BETA	MO	M/M*		RP				
		-4.04			_					
NR		PSC		_		L				
1.000	2133	•7 1954	.2 194	0.8	2.35	1.36	1.44	0.644		
		TOTA	L PRESSU	RE RATIO	OS. PT/P	TO				
INLET	RAKE									
101-1	08 0.9915	0.9951	0.9940	0.9790	1.0024	1.0025	1.0023	N.G.		
		1.0008		1.0023		1.0025	1.0023	1.0024		
	24 1.0020			N.G.		1.0023	1.0019			
	30 1.0022		1.0019			1.0020				
	RY LAYER		10017	100022	10022	10020				
	38 N.G.		0.9352	N.G.	0.8634	N.G.	0.9973	0.9813		
	42 0.9367				0.0034	14.0.	067773	0.7013		
_			0.0099	0.0415						
	RY LAYER I	:								
143-1	44 0.8173	0.7270								
		INL	ET STATI	C PRESSU	JRES. PS					
RAKE W	ALL									
201-2	06 1948.6	1962.2	1967.5	N.G.	1938.5	N.G.				
RAKE BI	JLLET									
207-2	12 1899.5	1904.0	1907.7	1905.7	1895.0	N.G.				
TOP										
213-2	20 1695.6	2113.8	N.G.	1878.0	1859.7	1878.0	1882.0	1892.2		
	24 1903.2		1987.0	1981.7						
SIDE										
	32 2087.8	2022.6	1848.7	1776.4	1813.7	1833.4	1844.2	1853.2		
	36 1866.2	N•G•	1979.7	2003.4	101501	103344	104462	102342		
		M.O.	171701	2003.4						
SPLITTI	_	N. C	AL C	1060 (	1025 (	1055 4	10/5.0	102/ 2		
	44 2135.3	N.G.	N.G.	1950.6	1935•6	1955•4	1945.8	1924.3		
245	2133.0									
BOTTOM										
		1918.6	1914.8	1916.3	1916.6	1926.3	1957.3	1969.5		
309	1970.8									
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP				
NACELLE	TOP									
310-3	17 N.G.	-0.640	N.G.	N.G.	N.G.	P.O.	-0.368	N.G.		
318-32	20 N.G.	-0.237	-0.154							
NACELLE										
321-3	-	0.059	-0.000	-0.109	-0.158	-0.222	-0.207	N.G.		
329	-0.301			J						
CANOPY SIDE										
330-3		-0.222	N.G.	N.G.	-0.066					
	CENTER L			1100	01000					
	+2 0.567		P.O.	P.O.	P.O.	P.O.	0.058	0-250		
_		-00130	F . U .	F • • • •	F	F • U •	0.030	0.350		
CANOPY		0 051								
343-34	44 0.055	0.351								

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 19 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA 0.11	BETA -4.04	M0 0•702				_	
NR		PSC				L		M/MO
	_	.8 1781					1.90	
		TOTA	L PRESSU	RE RATIO	OS. PT/P	ro		
INLET F								
	0.9673		0.9743		_	1.0019	1.0018	
	6 1.0018			1.0020	1.0018	1.0020	1.0017	
	4 1.0018			N.G.	1.0018	1.0019	1.0018	1.0018
	30 1.0017		1.0020	1.0019	1.0018	1.0020		
	RY LAYER I							
	18 N.G.			N.G.	0.8693	N.G.	0.9989	0.9952
	2 0.9647		0.8701	0.8403				
	Y LAYER							
143-14	4 0.8088	0.7238						
		7.414	CT	C DDE CC.	IDEC DO			
RAKE WA		INL	EI SIAII	C PRESSU	JRES. PS			
	6 1769.9	1795.9	1869.1	N.G.	1752.7	N.G.		
RAKE BU		117207	100761	1100	113201	7100		
	2 1673.6	1683.8	1691.7	1684.3	1670•2	N.G.		
TOP	2 10/5	100340	10714	100463	10.002	1100		
	0 1938.5	1991.0	N.G.	1569.7	1572.0	1627.6	1650.2	1676.7
	4 1697.9		1850.7	1839.6	25.200	202.00		10.00.
SIDE			20000	23				
	2 2133.8	1797.3	1474.0	1371.5	1465.8	1559.0	1579.9	1596.3
	6 1624.5	N.G.	1839.1	1880.6				
SPLITTE								
	4 2135.3	N.G.	N.G.	1762.0	1738.0	1784.0	1771.6	1731.2
	1721.6					_		
BOTTOM								
301-30	8 N.G.	1685.4	1703.8	1718.3	1720.4	1741.6	1797.1	1818.1
309	1816.6							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE						_		
310-31			N.G.	N.G.	N-G.	-0.359	-0.353	N.G.
318-32		-0.239	-0.156					
NACELLE								
321-32		0.280	0.149	0.009	-0.061	-0.162	-0.182	N.G.
329	-0.294							
CANOPY			A1 -					
	4 N.G.		N.G.	N•G•	-0.106			
-	CENTER LI		0.0	0 0	0.0	0.0	0.05	0
	2 0.566	-0.142	P.O.	P.Q.	P.O.	P.0.	-0.017	0.239
CANOPY		0.240						
343-34	4 -0.007	0.260						

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 20 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA 0.11	BETA -4.04	M0	M/M* 0.881	LP 2•00	RP 2 • 0 (	BP OPE	N
NR	PTC				K 2.00	L		M/MO
0.992	_	_		0.1		3.27	_	
00//2	2110	1025	•0 150		7470	3021	2410	00704
		TOTA	PRESSU	RE RATIO	S. PT/P	n		
INLET F	DAKE	1017	L INCOSO	NE NATIO	,			
	8 0.9452	0.9517	0.9589	0.9229	1.0016	1.0017	1.0016	N.G.
_	6 1.0016	-	1.0017	1.0020	1.0017	1.0020	1.0016	1.0018
	4 1.0018		1.0016	N•G•	- •	1.0020	1.0016	1.0018
			1.0019	1.0019			10010	10010
_	RY LAYER		1.0019	1.0019	1.0016	1.0018		
131-13			0.9746	N.G.	0.8734	NaGa	0.9991	0.9978
	2 0.9768		0.8764	0.8397	000734	11000	••///	
	Y LAYER		000104	00057.				
	4 0.8012							
145-14	4 0.8012	06/250						
		1 Ni	FT CTATI	C PRESSU	IRES. PS			
RAKE WA	(T-1)	174	LI SIAII	C PRESSO	KLST PS			
	6 1605.9	1645.4	1658.9	N.G.	1589.8	N.G.		
RAKE BL		104764	10000	11000	130340	14.0.		
	2 1458.5	1475.1	1488.4	1472.9	1452.5	N.G.		
TOP	2 143007	14/201	140044	141207	147207	14.0.		
	2040.1	1860.0	AL.G	1271.8	1271.4	1390.1	1435.6	1477.9
	4 1510.4		N.G. 1727.5		12/100	137011	1433.60	14//69
	4 1510.4	1/2001	112105	1709.5				
SIDE	2 2129.3	1638.6	1204,9	961.2	1037.8	1320.7	1356.8	1380.0
			· <del>-</del>		1031.0	132001	133010	130000
SPLITTE	6 1421.8	N.G.	1716.8	1765.1				
	4 2135.5	N.G.	N.G.	1500.2	1556.7	1622.4	1617.7	1558.7
		N.C.	14.0.	150962	1996 1	103204	101/1/	199001
245	1548.8							
BOTTOM		1444 1	1407 9	1622 6	1520 0	1572 4	1450 5	1481 0
301-30		1444.1	149/00	1532.6	193000	1573.6	1659.5	1681.0
309	1676.9							
			22555112		a.c., 7.			
	700	STATIC	PRESSUR	E COEFFI	CIENTS	Ch		
NACELLE		-0 030	AL C	N C	N. C	-0.317	_0 228	N . C
310-31		-0.039 -0.235		N.G.	N.G.	-0.317	-0.550	N.G.
318-32		-0.233	-0.154					
NACELLE		0 200	0.220	0.072	0.007	0 125	0.142	A) 6
321-32		0.388	0.228	0.073	-0.006	-0.125	-0.162	N.G.
329								
CANOPY		-0 222	AL C	N C	-0.124			
330-33		-0.233	N.G.	N.G.	-0.124			
	CENTER L		D 0	0.0	D ()	0 0	0.057	
	2 0.565	-0.145	P.O.	P.0.	P.O.	P.O.	-0.057	0.161
CANOPY								
343-34	4 -0.039	0.206						

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 21 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA 0.11	BETA -4.04	M0 0.700	M/M* 0.905	LP 2•51	RP 2 • 5	_	
NR	PTC			-	K	L	WC	M/MO
0.990	2111	_	.3 152		8.93	3.50	2.22	0.991
				. • • •		3020		
		TOTA	I PRESSU	RE RATIO	S. PT/P	TO		
INLET R	AKF		C I WEST			. •		
	8 0.9308	0.9256	0.9529	0.9138	1.0016	1.0018	1.0013	N.G.
	6 1.0014		1.0018	1.0017	1.0018	1.0022	1.0015	1.0013
_	4 1.0017		1.0016	N.G.	1.0018	1.0022	1.0020	1.0013
	0 1.0016	_	1.0018	1.0019		1.0018	160020	1.0017
	Y LAYER		1,0018	1.0019	1.0010	1.0019		
			0.9769	N.C.	0 0745	A) G	0.9992	0.0000
131-13			0.9789	N.G.	0.8745	N.G.	007772	0.9980
	2 0.9792		0.0702	0.8400				
	Y LAYER							
143-14	4 0.7984	0.7234						
					IDEC 5-			
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA								
	6 1553.1	1596.3	1610.9	N.G.	1537.0	N.G.		
RAKE BL				21.122				
	2 1387.3	1405.7	1416.7	1401.4	1376.6	N.G.		
TOP								
	0 2061.0		N.G.	1178.4	1135.5	1293.6	1361.9	1412.2
221-22	4 1450.3	1687.2	1687.7	1667.4				
SIDE								
225-23	2 2125 • 4	1605.9	1155.8	851.4	889.8	1184.6	1282.8	1323.5
233-23	6 1368.1	N.G.	1678.1	1727.3				
SPLITTE	R							
237-24	4 2136.1	N.G.	N.G.	1534.7	1497.4	1584.4	1569.1	1503.6
245	1494.6							
BOTTOM								
301-30	8 N.G.	1352.8	1421.9	1465.6	1474.8	1520.9	1616.3	1637.3
309	1631.9							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP					<b>.</b>		
	7 N.G.	-0.002	N.G.	N.G.	N.G.	-0.305	-0.333	N.G.
318-32								
NACELLE		00251	00154					
321-32		0.411	0.248	0.089	0.007	-0.115	-0.156	N.G.
329	-0.284	0.411	00240	0.007	0.007	-00117	-01170	14.0.
CANOPY								
330-33		-0.233	N.G.	N-G-	-0.129			
	CENTER L		.,,,,,	14.00	-04127			
			P.O.	D - O	P.O.	P.O.	-0.066	0.141
	2 0.565	-00149	F . U .	F • U •	F • U •	F • U •	-0.000	0.141
CANOPY		0 100						
343-34	4 -0.046	0.193						

RUN	. 3	BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT	.:2	BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RF	) BF	
	0.11	3.99	0.699	0.910	2.51	2 • 5	_	
NR	PTC				K	L	WC	M/M0
0.997	2127	-				4.04	2.23	0.997
		TOTA	ı PRESSL	RF RATIO	OS. PT/P	TO		
INLET R	AKE		L TRESCE	WE WATER		• •		
	8 0.9613	0.9964	1.0001	0.9329	1.0008	1.0011	1.0011	N.G.
109-11	6 1.0010	0.9959	1.0012	1.0011	1.0013	1.0016	1.0011	1.0013
117-12	4 1.0012	1.0013	1.0010	N.G.	1.0013	1.0013	1.0013	1.0013
	0 1.0011		1.0013	1.0013	1.0011	1.0012		
	Y LAYER							. =
	8 N.G.			N.G.	0.8730	N.G.	0.9993	0.9991
	2 0.9820		0.8801	0.8412				
	Y LAYER							
143-14	4 0.7997	0.7246						
		TAIL	ET STATE	C PRESSI	JRES. PS			
RAKE WA	LL	1.14	C. O.A.	CIRESOL	PKLOV PO			
. –	6 1563.4	1607.7	1633.4	N.G.	1547.6	N.G.		
RAKE BU								
207-21	2 1404.7	1425.0	1436.6	1419.7	1394.2	N.G.		
TOP								
	0 1995.4	1926.8	N.G.		1464.5	1523.8	1532.3	1547.0
	4 1560.8	1706.8	1707.9	1683.9				
SIDE						2012		=
	2 1911.2		1828.8	_	1581.7	1551.5	1515.4	1505.2
	6 1508.3	N.G.	1700.3	1771.7				
SPLITTE	к 4 2133•7	AL. G	N.G.	1482.6	1469•6	1602.1	1500.3	1522 0
245	1512.5	N.G.	N.G.	140200	140900	1583.1	1580•3	1523.8
BOTTOM								
		1685.1	1694.0	1689.2	1679•2	1629.3	1649.0	1654.9
	1655.7	100201	10)400	100742	101702	102743	104710	102447
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE								
	7 N.G.			N.G.	N.G.	-0.352	-0.352	N.G.
	0 N.G.	-0.241	-0.165					
NACELLE							_	
	8 N•G•	-0.712	-0.582	P.O.	P.O.	P.O.	P.O.	N.G.
329								
CANOPY		0.0	N.G.	AL. C.	_0 105			
	4 N.G. Center Li	POO	N.G.	N.G.	-0.185			
	2 0.565		P.O.	P.O.	P.O.	p.n.	-0.065	0.141
CANOPY		0.133	,	F • • • •	F . 0 .	F • U •	-0.003	00141
_	4 -0.075	0.133						
J.J J4		0 4 2 3 3						

RUN 3 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA 0.11	BETA	M0 0 • 700	M/M* 0.881	LP 1•99		BP O OPE	N
NR		PSC				L		M/MO
0.997				=	6.25	3.69	_	• • • • •
		TOTAL	L PRESSU	RE RATIO	S. PT/PT	ГО		
INLET F	RAKE		_					
101-10	8 0.9694	0.9976	1.0004	0.9390	1.0007	1.0011	1.0011	N.G.
109-11	6 1.0008	0.9963	1.0008	1.0011		1.0013	1.0007	1.0012
117-12	4 1.0011	1.0012	1.0008	N.G.	1.0010	1.0011	1.0011	1.0007
125-13	0 1.000F	N.G.	1.0011	1.0011	1.0008	1.0011		
	Y LAYER							
	8 N.G.		0.9764	N.G.	0.8718	N.G.	0.9993	0.9988
	2 0.9806		0.8794					
	Y LAYER							
	4 0.8021							
_								
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	LL	-,,-						
	6 1619.0	1658.0	1682.0	N.G.	1603.5	N.G.		
RAKE BL								
	2 1478.7	1495.6	1505.2	1493.1	1473.0	N.G.		
TOP								
	0 1965.2	1958.1	N.G.	1528.9	1530.9	1582.3	1588.8	1601.8
221-22	4 1614.2	1744.1	1745.2	1723.7				
SIDE								
	2 1873.1	2091.9	1875.4	1676.3	1643.8	1613.6	1579.7	1567.3
233-23		N.G.	1740.4	1803.4				
SPLITTE				_				
	4 2134.0	N.G.	N.G.	1540.8	1529.8	1631.4	1628.6	1577.8
245	1566.8							
BOTTOM								
301-30	8 N.G.	1734.2	1735.5	1731.4	1720.6	1675.4	1691.5	1697.3
309	1698.1							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP	• • • • • •	0001					
310-31		-0.186	N.G.	N.G.	N.G.	-0.361	-0.354	N.G.
	U N.G.							
NACELLE								
321-32		-0.788	-0.633	P.O.	P.O.	P.O.	P.O.	N.G.
329	-0.354							
CANOPY								
330-33		P.O.	N.G.	N.G.	-0.180			
	CENTER L							
335-34			P.O.	P.0.	P.U.	P. U.	-0.055	0.160
CANOPY	_							
	4 -0.067	0.149						
J. J J4								

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 24 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

			•••					
-	ALPHA		MO				BP	.1
410		3.98			1.50			
NR () OOO	PTC				K	L	WC 1•89	M/M0 0•842
0.999	2131	4 1/93	.8 176	0.0	4.07	2.62	1009	00042
		TOTA	L PRESSU	RE RATIO	OS. PT/PT	r o		
INLET R	AKF	1017	L INCOO	NE NATIO				
	8 0.9859	0.9993	1.0004	0.9609	1.0007	1.0010	1.0010	N.G.
	6 1.0008		1.0008	1.0012	1.0011	-	1.0008	1.0012
	4 1.0010			N.G.	1.0010		1.0011	1.0011
	0 1.0007		1.0010	1.0008	1.0007	1.0008		
	Y LAYER I							
131-13	B N.G.	0.9960	0.9649	N.G.	0.8681	N.G.	0.9994	0.9976
139-14	2 0.9715	0.9307	0.8761	0.8452				
BOUNDARY	Y LAYER I	DUCT						
143-14	4 0.8106	0.7251						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WAI						-		
	6 1780.2	1807.0	1822.0	N.G.	1766.1	N.G.		
RAKE BUI	_		. 704 . 0					
	2 1687.9	1697.2	1704.8	1699•2	1684.8	N.G.		
TOP	0 1011 0	2057 0	AL 6	1750 0	17/7 0		1740 4	1776 1
	0 1811.0	2057.8	N.G.	1758.8	1747.2	1770.1	1768.4	1775.1
	4 1780.2	1860.1	1861.2	1847.7				
SIDE	1402 6	2122 7	2020 2	1070 6	100( )	1904 2	1774 5	1767 1
	2 1693.5		2020.2	1878.5	1836•1	1806 • 2	1776.5	1764.1
	6 1761.0	N.G.	1857.3	1901.3				
SPLITTE	4 2133.2	N.G.	N.G.	1703.7	1702.0	1775.1	1775.1	1741.5
245	1734.8	N•0•	11.56	110361	170200	111761	177901	114162
BOTTOM	_ , _ ,							
		1879.2	1870.0	1864.1	1855.4	1821.2	1823.7	1827.0
309	1826.8							
307	202000							
		STATIC	PRESSUR	F COEFFI	CIENTS.	CP		
NACELLE	TOP		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			<u>.</u>		
		-0.358	N.G.	N.G.	N.G.	P.O.	-0.371	N.G.
318-320	N.G.	-0.245	-0.168					
NACELLE								
		-1.027	-0.802	P.O.	P.O.	P.O.	P.0.	N.G.
329	-0.356							
CANOPY S								
330-334			N.G.	N.G.	-0.163			
	CENTER L							
		-0.133	P.O.	P.O.	P.O.	P.O.	-0.018	0.235
CANOPY S	SIDE							

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

343-344 -0.034 0.211

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PI 25 BOUNDARY LAYER DUCT OPEN. BUTH ENGINES OPERATIVE

	ALPHA			M/M# U.587	LP 1•00		BP OPE	
NR	PTC				K	L		
1.000		.7 1955					1.44	
						• • • •		
		ATOTA	L PRESSU	RE RATIO	DS. PT/P	TO		
INLET F	RAKE							
101-10	JB 4.9787	1.0001	1.0007	0.9862	1.0007	1.0011	1.0008	14.6.
109-1	16 1.0008	1.0004	1.0010	1.0013	1.0011	1.0014	1.0010	1.0014
117-12	24 1.0010	1.0011	1.0010	N.G.	1.0010	1.0011	1.0010	1.0010
125-13	30 1.0008	N. 6.	1.0010	1.0011	1.0010	1.0011		
BOUNDA	RY LAYER I	RAKE						
131-13	38 N.G.	0.4822	0.9352	N.G.	0.8593	N.G.	0.9988	0.9873
139-14	2 0.9441	0.4005	0.8655	0.8467				
BOUNDAR	RY LAYER I	DUCT						
143-14	4 0.8152	0.7254						
		INL	ET STATE	C PRESSU	JRES. PS			
RAKE WA	ALL							
201-20	6 1949.1	1963.1	1470.8	N.G.	1939.5	N. G.		
RAKE BL	JLLET							
201-21	12 1902.2	1905.9	1900.4	1909.0	1897.4	N.G.		
TOP								
213-22	20 1535.4	2118.2	N.G.	1981.8	1957.8	1962.0	1956.4	1955.3
221-22	24 1953.9	1988.9	1990.0	1981.8				
SIDE								
225-2:	12 1368.5	2116.8	2120.7	2061./	2021.3	1993.1	1970.8	1963.2
233-23	66 1956.4	N. G.	1988.3	2011.2				
SPLITTE	R							
237-24	4 2133.1	N.G.	N.G.	1893.2	1897.1	1436.4	1941.7	1925.1
245	1921.1							
HOTTOM								
301-30	B N.G.	2030.1	2013.0	2004.8	1997.7	1975.1	1971.3	1971.8
309	1971.3							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 N.G.	-1.340	N.U.	N.G.	N.G.	P.O.	P.0.	N.G.
318-32	0 N.G.	-0.252	-0.172					
NACELLE	SIDE							
321-32	8 N.G.	-1.377	-1.129	P.O.	P.0.	P.O.	P.O.	N.G.
329								
CANOPY	SIDE							
330-33	NoGo	P.U.	N.G.	N.G.	-0.130			
	CENTER LI							
335-34	2 0.566	-0.131	P.O.	P.O.	P.U.	P.O.	0.053	0.345
CANOPY	SIDE							
343-34	4 0.026	0.299						

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 26 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES GPERATIVE

		BETA 3.98						
NR		PSC			K	L		M/MO
1.001	2135	•5 2077			0.29			0.379
		<b>.</b>						
		TOTA	L PRESSU	RE RATIO	DS. PI/P	10		
INLET F								۸. ۵
		1.0007		0.9984	1.0006	1.0012		N.G.
	-	1.0010	1.0008	1.0013	1.0011	1.0013	1.0008	1.0013
		1.0012	1.0010	N.G.	1.0010	1.0010	1.0008	1.0011
	30 1.0006		1.0008	1.0011	1.0008	0.9996		
	Y LAYER							
131-13				N.G.	0.8315	N.G.	0.9382	0 • •
	2 0.8574		0.8292	0.8278				
	RY LAYER							
143-14	4 0.8181	0.7254						
		INL	ET STATI	C PRESSI	JRES. PS			
RAKE WA	LL				oneov . c			
201-20	6 2076.1	2080.4	2080.6	N.G.	2071.9	N.G.		
RAKE BU	JLLET							
207-21	2 2060.6	2062.6	2063.1	2062.8	2053.0	N.G.		
TOP								
213-22	U 1207.6	2079.8	N.G.	2106.6	2092.8	2091.1	2086.8	2005-2
	4 2083.7	2088.8	2088.3	2086.6				
SIDE				_				
	2 1005.2	1992.0	2110.2	2135.7	2125.2	2114.0	2104.6	2097.6
	6 2092.8	N.G.	2090.0	2096.7				
SPLITTE		,,,,,						
	4 2133.4	N. G.	N. U.	2047.9	2052.4	2068.8	2071.3	2067.1
245	2066.5							
BOTTOM	240043							
	8 N.G.	2118.9	2112.0	2107.4	2102.5	2089.5	2083.6	2082.6
309	2082.1	21100)	211240	2 20.0	21020	200703	200300	200200
507	20021							
		STATIC	PRESSUR	L COLFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 N.G.	-1.477	N.G.	N.G.	N.G.	P.U.	P. 0.	N.G.
318-32	U N.G.	-0.254	-0.173					
NACELLE	SIDE							
321-32	8 N.G.	-1.131	-1.108	P.U.	P.U.	P.U.	P. U.	N.G.
329	-0.343							
CANOPY								
330-33		P.O.	N.G.	N.G.	-0.059			
	CENTER L			-	-			
	2 0.566		P.O.	P.O.	P.U.	P.O.	0.176	0.409
CANOPY	_	• = <del>-</del> =						
_	4 0.139	0.331						
2.55								

#### INLET PRESSURE SURVEY 1/5 SCALE MODEL RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, PT 27 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA 8.02			LP 0.51		_	
NR	PTC					L		
1.000		•9 2078					0.83	
2000	215	.,	- 20.	207	0023	0002	0003	
		TOTA	I PRESSI	IRE RATIO	OS. PT/P	TO		
INLET	RAKE		L THEODE		337 177	. 0		
	08 0.9998	1.0011	1.0011	0.4986	0.9994	1.0011	1.0010	N.G.
	16 1.0007			1.0011		1.0010	1.0005	
	24 1.0005			N.G.		1.0004	1.0004	1.0004
	30 1.0001	_	1.0002			1.0004	20000	
_	RY LAYER	•	10000	20003	10000	10000		
	38 N.G.		0.8991	N.G.	0.8516	N.G.	0.4915	0.9581
	42 0.9087		0.8557		000710			
	RY LAYER							
	44 0.8122	-						
		INL	ET STATI	C PRESSU	JRES • PS			
RAKE W	ALL							
	6 2076.1	2081.2	2083.7	N.G.	2072.7	N.G.		
RAKE BI								
	12 2060.9	2062.6	2063.7	2062.8	2053.5	N.G.		
TOP						,,,,,,		
	20 1091.3	2031.2	N.G.	2111.7	2104.6	2103.2	2099.0	2097.0
	24 2094.8		2088.0	2086.6				
SIDE								
	32 1021.5	1861.5	2057.8	2129.8	2136.3	2129.8	2121.9	2114.0
	36 2108.U	N.G.	2091.4	2097.3				
SPLITTE								
_	4 2121.9	N.G.	N. U.	2020.4	2038.3	2064.3	2068.8	2066.0
245	2134.0							
BOTTOM								
	08 N.G.	2104.6	2105.6	2105.1	2103.0	2095.4	2085 • 1	2081.6
309	2080.8					-		
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 N.G.	-1.481	N.G.	N.G.	N.G.	P.O.	P.O.	N.G.
318-32	0 N.G.	-0.321	-0.232					
NACELLE	SIDE							
321-32		-0.890	-0.903	P.U.	P.U.	P.O.	P.U.	N.G.
329	P.O.							
CANOPY	SIDE							
330-33	14 N.G.	P.O.	N.G.	N.G.	-0.118			
CANOPY	CENTER L							
335-34	2 0.536	-0.134	P.O.	P.O.	P.O.	P.O.	0.160	0.437
CANOPY	SIDE							
343-34	4 0.117	0.331						

#### INLET PRESSURE SURVEY

1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 28 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	Δι ΡΗΔ	HETA	MΩ	M/M#	LP	RP	BP.	
					1.00			
NR		PSC			K	L		M/MO
1.000		8 1957				1.49		
		TOTA	L PRESSU	JRE RATIO	DS. PINE	ro		
INLET R								
	8 0.9982					1.0008		N.G.
_	6 1.0007	_		1.0010	1.0007	1.0011	1.0007	
	4 1.0007	-		N.G.		1.0007	1.0004	1.0005
			1.0001	1.0006	1.0005	1.0004		
	Y LAYER I		1) (15 E.	A4 .~	0 9//1	N G	0.000	0.0067
		0.9883			0.8641	N•G•	0.9983	0.9967
-	· ·	-	0.8704	0.8433				
	Y LAYER ( 4 0.8021							
143-14	4 0.6021	0.7205						
		INL	ET STATI	IC PRESSI	JRES. PS			
RAKE WA	LL							
201-20	6 1951.6	1965.4	1973.1	N.G.	1941.2	N.G.		
RAKE BU	LLET							
207-21	2 1904.2	1900.4	1914.0	1910.	1899.4	N.G.		
TOP								
213-22	U 1408.6	2097.6	N.G.	2019.9	1999.9	1998.8	1989•2	1985.5
221-22	4 1982.1	1992.0	1991.1	1985.5				
SIDE								
	2 1029.2		2134.0		2077 • B	2049.6	2028.4	2006.1
	6 1994.2	$N \bullet G \bullet$	1992.0	2012.9				
SPLITTE								
	4 2122.1	N.G.	N.G.	1861.0	1878.2	1931.0	1938.0	1924.5
	1922.8							
HOTTOM								
			2032.2	2025.8	2019•4	1994.8	1977.2	1973.1
309	1972.1							
		STATIC	PRESSUR	RE COEFFI	CIENTS.	CP		
NACELLE			<b>A</b> 1 C		<b>A.</b> 6	0.0	10.70	
				N • G •	N.G.	P.0.	P.0.	N.G.
		-0.313	-0.237					
NACELLE		1 072		<b>D</b> ()	n 0	<b>D</b> ()	5 0	<b>N</b> . 6
		-1.073	-1.061	P.U.	P.O.	P.0.	P.0.	$N \bullet G \bullet$
	-0.354							
CANUPY S		0.0	N. C	A) - C	-0.104			
		P.O.	N . O .	N O O	-0.194			
	CENTER LI		Ρ.Δ	ρ. ω	0 • O •	D 0	0.041	0 000
CANOPY S	-	-00134	, •0•	F • U •	• • •	- • • •	0.041	0.338
	SIDE	0 241						

READ TUBES HORIZONTALLY AND CONSECUTIVE. .
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

343-344 0.004 0.281

BP

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 29 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

ALPHA BETA MO M/M\* LP RP

	0.12	8.02	0.700	0.763		1.5	1 OPF	N
NR	PTC	PSC	ρş	SB S	K	L	WC	M/MO
		2 1800					1.87	
						2007		
		TOTA	L PRESSU	RE RATIO	US. PT/P	Τυ		
INLET R	AKE		_					
	8 0.9905	1.0000	1.0002	0.4/55	0.9994	1.0001	1.0001	N.G.
	6 1.0000		0.9999			1.0002	0.9999	1.0000
117-12	4 0.9999	1.0001	0.4999		1.0000	1.0000	0.9999	1.0000
	0 0.9996		0.9999	1.0000		0.4944		
	Y LAYER F			_				
	B N.G.		0.9768	N.G.	0.8694	N.G.	0.9969	0.9977
	2 0.9817		0.8731					
	Y LAYER (							
143-14	4 Ú.7881	0.7101						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WAI	LL							
2-1-20	6 1786.7	1814.1	1829.3	N.G.	1772.9	N.G.		
RAKE BUI	LLET							
207-21	2 1697.5	1706.8	1713.6	1/07.9	1693.8	N.G.		
TOP								
213-22	1700.5	2066.2	N.G.	1831.6	1816.4	1829.6	1821.4	1821.2
221-22	4 1820.0	1866.3	1866.6	1853.6				
SIDE								
225-232	2 1290.2	2120.7	2115.4	2012.3	1946.8	1902.5	1864.9	1837.0
233-236	5 1823.1	N.U.	1866.0	1907.3				
SPLITTER	₹							
237-244	2127.5	$N \bullet \circ \bullet$	N. U.	16/3.5	1685.9	1771.5	1778.2	1747.5
245	1742.4							
BOTTOM								
3-1-308	N.G.	1920.6	1913.8	1907.9	1897.4	1854.2	1835.5	1834.7
309	1831.4							
		STATIC	PRESSUR	L COEFFI	CIENTS.	<b>CP</b>		
NACELLE	TOP							
310-317	7 N.G.	-0.516	N.G.	N.G.	N.G.	P.O.	P . O .	N.G.
318-320	N.G.	-0.30H	-0.236					
NACELLE	SIDE							
321-328	N.G.	-1.493	-1.341	P.U.	P.U.	P. 0.	P.O.	N.G.
329	-0.358							
CANOPY S	SIDE							
330-334	N.G.	P.U.	N.G.	N.G.	-0.237			
CANUPY (	ENTER LI	NE						
335-342	0.533	-0.145	P.0.	P.O.	P.U.	P.O.	-0.035	0.218
CANUPY S								
343-344	-0.067	0.180						

#### INLET PRESSURE SURVEY

1/5 SCALE MODEL

RAKE WALL

RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 30 BÖUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	<b>BETA</b>	MO	M/M*	LP	RP	вР	
	0.12	8.02	0.700	0.877	2.00	2.00	OPEN	
NR	PTC	PSC	PSB		K	L	WC	M/MO
<b>∪•997</b>	2128.	6 1648	6 1607	• 2	5.04	3.71	2.15	0.959

#### TOTAL PRESSURE RATIOS. PT/PTO

INFE! KAI	( E									
101-108	0.9829	1.0001	1.0005	0.9507	1.0001	1.0010	1.0007	N.G.		
1-9-116	1.0001	0.9787	1.0001	1.0004	1.0000	1.0004	1.0000	1.0004		
117-124	1.0000	1.0001	1.0000	N. 6.	0.9998	0.9998	0.7796	0.9996		
125-130	0.9993	N.G.	0.9992	0.9996	0.9994	0.9996				
BOUNDARY	LAYER R	AYER RAKE								
131-138	N • G •	0.4984	0.9820	N • G •	0.8678	N.G.	0.9953	0.9961		
139-142	0.9824	0.9396	U.b661	0.8163						
BOUNDARY	LAYER D	UCI								
143-144	U.7651	0.7024								

#### INLET STATIC PRESSURES. PS

201-206 1625.5 1666.4 1690.7 N.G. 1611.7 N.G.

RAKE BUL	LET							
207-212	1490.8	1507.2	1520.5	1505.2	1485.4	N.G.		
TOP								
213-220	1870.3	1986.3	N.G.	1642.4	1639.0	1670.7	1660.8	1666.7
221-224	1670.7	1751.7	1752.5	1731.4				
SIDE								
225-232	1480.0	2134.6	2050.1	1882.8	1807.9	1753.7	1708 • 2	1670.9
233-236	1654.9	N • G •	1750.0	1810.1				
SPLITTER								
237-244	2130.3	N.G.	N.G.	1506.9	1510.0	1627.7	1631.4	1585.4
245	1575 . 8							
BOTTOM								
301-308	N.G.	1812.5	1805.3	1790.9	1783.8	1722.4	1705.0	1704.0
369	1704.0							

#### STATIC PRESSURE COEFFICIENTS. CP

NACELLE TOP								
310-317	N.G.	-0.340	N.G.	N.G.	N. 6.	P.0.	P.O.	N.G.
318-320	N • G •	-0.305	-0.235					
NACELLE SID	E							
321-328	N • C •	-1.550	-1.411	P.O.	P.O.	P.O.	P.O.	N.G.
<b>329 -</b> 0	2500							
CANOPY SIDE								
330-334	N • G •	P.U.	N.G.	N.G.	-0.257			
CANOPY CENT	ER LI	NE						
335-342 0	•533	-0.146	P.0.	P.0.	P.U.	P.O.	-0.070	0.150
CANOPY SIDE								
343-344 -0	.100	0.113						

RUN 3 BASIC CANOPY • 24E OVAL INLET • LONG SPLITTER • BOUNDARY LAYER DUCT OPEN • BOTH ENGINES OPERATIVE

F 1	21	BOOM	JAKT LATE	R DUCT O	PEN BUI	H ENGINE	OPERAT	IAC	
	A 1	DILA	0574	Mo	14 / 14 %	LP	RP	вР	
		LPHA 0•12	BETA 8.02	M0 0•698	M/M* 0•912	2.51	2.5	_	
NR		PTC	PSC			K 2001	L 200	WC OFL	M/MO
0.99		2127		•5 153		6.01	4.18		
V . 7 7	•	2121	1 1 1 1 2 2	• 7 195	4 6 1	0.01	4010	2023	00777
			TOTA	I DDECCIII	DE DATI	S. PT/P	τ Λ		
INLET	DA	νĽ	IOTA	L PRESSU	KE KAIT	739 PI7F	10		
		U.9772	0.9998	1.0006	0.9407	1.0000	1.0006	1.0006	N.G.
		1.0000		1.0000	1.0001	1.0000	1.0002	0.9999	1.0001
		1.0000			N.G.	0.9998	0.9996	0.9996	0.9996
		-	N.G.	0.9996	0.9996	0.9994	0.9998		
		LAYER F		0.000		0 0 7 7 7		0.0044	0.00.4
131-		N.G.			N.G.	0.8676	N.G.	0.9946	0.9956
		0.9822	0.9392	0.8633	0.8102				
		LAYER D							
143-	144	U.7573	0.7015						
			INL	ET STATI	C PRESSU	IRES. PS			
RAKE	_								
		1558.3	1606.3	1633.1	N.G.	1544.2	N.G.		
RAKE	BULL	_ET							
	212	1402.7	1422.8	1456.6	1417.1	1391.4	$N \bullet G \bullet$		
TOP									
213-	220	1925.3	1947.1	N.G.	1551.5	1553.2	1596.7	1589.9	1595.6
221-	224	1600.4	1706.0	1707.4	1682.2				
SIDE									
225-	232	1560.5	2134.3	2014.6	1823.4	1741.5	1683.1	1632.3	1592.5
233-	236	1577.8	N.G.	1702.9	1772.9				
SPLIT	TER								
237-	244	2134.6	N.G.	N.G.	1450.7	1445.3	1574.9	1576.1	1519.6
245		1510.0							
BOTTO	M								
301-	308	N.G.	1756.4	1754.4	1746.7	1732.1	1661.5	1651.3	1651.3
309		1652.8							
			STATIC	PRESSURE	COLFFI	CIENTS.	CP		
NACEL	LE 1	901							
310-			-0.287	N.G.	N.G.	N.G.	P. 0.	P. 0.	N.G.
318-		N.G.	-0.305			-			
NACEL									
321-		N.G.	-1.525	-1-374	P.O.	P.0.	Palla	P.O.	N.G.
329	720	-0.362	44767	4000			. 504		
CANOP	γ (1								
330-		N.G.	P=()=	N.G.	NaGa	<b>-0</b> • · · · · 7			
		NTER LI			.,,,,,	44201			
				P.O.	P_0_	P.U.	P=0=	-0.083	0.122
CANOP									155
			0.085						
777	<b>→</b> ▼ ▼	~ 4 4 4 7							

RUN 3 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BUUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

			MO					
		-7.98						
NR		PSC				L		M/MO
0.960	2047	•7 1506	5 146	1.2	19.76	3.43	2.18	0.972
						= 1		
		TOTA	L PRESSU	RE RATI	US. PT/P	TO		
INLET								A
	8 0.9176		0.8112	0.9286	1.0010	1.0010		N.G.
	6 0.8371		1.0004	1.0005	1.0001	0.8680	0.8850	0.9928
	4 1.0002			N.G.	0.9342	0.9995	1.0001	1.0000
	0.9987		0.9775	0.9995	1.0000	1.0000		
	Y LAYER I							
	18 N.G.					N.G.	0.9964	0.9960
139-14	2 0.9818	0.9396	0.8741	0.8316				
BOUNDAR	Y LAYER	DUCT						
143-14	4 0.7605	0.7016						
		INL	ET STATI	C PRESS	URES. PS			
RAKE WA	LL							
201-20	6 1482.7	1533.6	1540.1	N.G.	1469.8	N.G.		
RAKE BU	ILLET							
207-21	2 1291.3	1353.4	1369.8	1319.0	1300.9	N.G.		
TOP								
213-22	0 2038.1	1789.1	N.G.	1152.4	1032.4	1213.1	1300.1	1340.4
221-22	4 1362.5	1536.4	1538.4	1577.6				
SIDE								
	2 2007.9	142/04	1074.2	1102.7	1226.4	1223.6	1245.6	1195.9
	6 1207.2	N.G.		1562.9				
SPLITTE		11000		13020				
	4 2135.0	N.G.	Natio	1416-4	1345.2	1436-4	1407.1	1330.3
245	1379.1	11000	11000	141004	134262	143044	140/01	133003
BOTTOM	13/761							
	H N C	1191.4	1204.7	1367.8	1 2 9 9 - 4	1417.0	1452.6	1462.0
		1171.4	130467	1302 60	130000	141/10	1452.0	1462.0
309	1498.9							
		CTATIC	DDECCUD	: COLE L	LCLLMTE.	<b>C</b> O		
NACELLE	<b>*</b> ()D	STATIC	PRESSUR	E CUEFF	ICIENTS.	CP		
310-31		-0 (120)	Δι	N	N.G.	-0 247	-0.372	61 C
		-	N.G.	N•G•	N.O.	-0.347	-0.372	N.G.
318-32		-0.282	-0.207					
NACELLE							0 0 5	
		0.648	0.370	0.238	0.176	0.051	-0.057	N.G.
329	-0.249							
CANOPY		<u> </u>						
	4 N.G.		N.G.	N•G•	-0 • 1 4 4			
	CENTER LI							
	2 0.532	-0.165	P.O.	P.O.	P.O.	P.U.	-0.083	0.127
CANOPY								
242-24	4 -0.050	0 212						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

343-344 -0.050 0.212

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 33 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA 0.10	BETA -7.98	MO 0 - 700		LP 2•00		BP 00 OPE	
NR	PTC						WC OF L	M/MO
U.967		·7 1006			K 16.60	3.16		
0.707	2005	1000		J 1 6 3	13037	7.10	2.01	00,23
		TOTA	I PRESSI	IRE RATI	OS. PT/P	TO		
INLET F	AVE	1017	L TRESSE	NE NATI	031 1171			
	08 0.9285	0.8488	0.8493	0.9403	0.9990	0.9992	0.9962	N.G.
	6 0.8740	0.9650	0.9989	0.9992		0.8861	0.9164	0.9930
	4 0.9990		0.9987	N•G•		0.9988	0.9990	0.9990
	0 0 9978	N•G•	0.9855		-	0.9989		
-	RY LAYER I		0.000			00,,0,		
131-13	• • • –	0.9953	0.4795	N.G.	0.8751	N.G.	0.9965	0.9956
	2 0.9794		0.8733		000,71			
	Y LAYER		••••	000320				
	4 0.7686	0.7036						
143 14	74 011000	00,000						
		TNI	FT STATE	C PRESS	URES. PS			
RAKE WA	A 1		C. G.A.	ic / KESS				
	6 1588.3	1628.4	1636.3	N.G.	1571.1	N.G.		
RAKE BL	-	10200	10000		12.141	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
_	2 1430.6	1474.8	1477.1	1450.3	1437.6	N.G.		
TOP	1 1 1 3 0 0 0	1 1 1 1 0 0		1 1 3 0 0 3	113.00	1100		
	20 2026.8	1818.7	N.G.	1198.4	1161.4	1330.8	1375.5	1416.7
	4 1449.7	1646.5	1649.1	1668.0		23300	23.505	
SIDE		10 4003	10.761	100000				
	2 2031.0	1401.4	1032.4	1094.5	1249.2	1241.3	1245.6	1263.9
233-23		N.G.	1599.4	1664.9				
SPLITTE		,,,,,,	12770	100 (0)				
	4 2135.3	N.G.	N.G.	1568.9	1508 • 2	1573.7	1543.2	1474.3
245	1496.9	,,,,,,			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
BOTTOM	147047							
	8 N.G.	1244.7	13/3.3	1426.7	1454.9	1496.8	1564.9	1584.8
	1605.3	124701	13.303	1 12 3 6 1	1113467	1 1 7 0 0 11	130 (0)	130460
307	100545							
		STATIC	DDFSSIID	E COFFE	ICIENTS.	CP		
NACELLE	TOP	JIAITE	, KESSON	COL!	·CICITIO			
310-31		-0.049	N.G.	N.G.	N. U.	-0.355	P.O.	N.G.
	0 N.G.		-0.207		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	****		
NACELLE			00201					
		0.678	0.489	0.331	0.235	0.074	-0.048	N.G.
329	-0.246							
CANOPY								
330-33		-0.154	N.G.	N.G.	-0.136			
	CENTER LI			.,,,,,	- 0 - 5 - 5			
	2 0.532		P.O.	P.U.	P.U.	P.U.	-U • 071	0.153
CANOPY			• •		•	0.2.0		
_	4 -0.040	0.230						
J. J.								

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

1

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 34 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

graf 177 ;

PT	34	BOUN	DARY LAYE	R DUCT	OPEN. BO	TH ENGINE	S OPERAT	IVE	
	A	LPHA	BETA	МО	M/M*	LP	RP	ВР	<b>)</b>
						1.50		_	
N	R	PTC		P		K	L		
0.9		2111	3 1779	.6 17	52•1	8.06	2.17	1.86	0.833
			TOTA	L PRESS	URE RATIO	DS. PT/P	TO		
INLE									
		0.9692		0.9212					N.G.
		0.9584		1.0006		1.0006		0.9915	
	_	1.0007		-	N.G.	1.0001	1.0008	1.0010	1.0010
125	-130	1.0007	N.G.	1.0007	1.0007	1.0006	1.0007		
BOUN	DARY	LAYER F	RAKE						
131	-138	N.G.	0.9955	0.9748	N.G.	0.8756	N.G.	0.9969	0.9951
139	-142	0.9727	0.9283	0.8705	0.8358				
BOUN	DARY	LAYER I	DUCT						
143	-144	0.7887	0.7100						
			INL	ET STAT	IC PRESSI	JRES. PS			
RAKE									
		1768.5	1795•3	1800.1	N.G.	1754•4	N.G.		
RAKE									
	-212	1669.1	1678.7	1604.9	1679.5	1667•4	N.G.		
TOP									
213	-220	1970.9	1923.2	N.G.	1446.9	1459.0	1551.4	1590.6	1625.9
221	-224	1654.7	1834.6	1835.4	1830.6				
SIDE									
		2062.7	1473.1	1079.8	1127.6	1263.1	1401.4	1477.1	1538 • 1
233	-236	1581.6	N.G.	1806.9	1841.9				
SPLI									
237	-244	2135.0	N.G.	N.U.	1791.6	1754.9	1788•3	1764.5	1720.5
245		1713.1							
BOTT	MC								
301.	-308	N.G.	1491.7	1564.4	1603.5	1628•3	1695.6	1775.1	1794.6
309		1796.9							
							_		
			STATIC	PRESSU	KE COEFFI	CIENTS	CP		
NACE	_		2 1 . 7				0	5 0	N 6
	-317	N.G.		N.G.	N.G.	N.G.	P.O.	P.0.	N.G.
	-320	N•G•	-0.286	-0.208					
NACLI				6.46	= 3.5.5	• • • • •	2 25 5	0 050	
	-328	N.G.	0.642	0.462	0.299	0.206	0.053	-0.059	N.G.
329	3.v	-0.250							
CANOI				۸. ۵	<b>b</b>				
	-334		-0.151	N.G.	N•G•	-0.120			
		ENTER LI		0	<b>D</b> 3	E		0 0-7	
335.	-342	0.532	-0.163	P.U.	P.O.	P.U.	P.O.	-0.037	0.221

READ TUBES HURIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

0.268

CANOPY SIDE

343-344 -0.015

### INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

#### RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER. PT 35 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA 0.10	BETA -7.98		M/M#	LP 1•00	RF	BP	
NR	PTC				K 1800		WC UPE	M/MO
0.997	2126					L 1•25	-	
00///	2120	•, 1,4,	• 4 172	7467	3040	1023	1443	00040
		ATOT	L PRESSU	JRF RATIO	OS. PT/P	10		
INLET I	RAKE							
	08 0.9849	0.9844	0.9663	0.9801	1.0006	1.0006	1.0005	N.G.
	16 0.9987		1.0005	1.0007	1.0006	1.0007	1.0002	1.0008
	24 1.0004		1.0004	N.G.	1.0006	1.0006	1.0004	1.0006
	30 1.0004	_	1.0004	1.0007		1.0004		
_	RY LAYER							
131-1			0.9548	N.G.	0.8712	N.G.	0.9965	0.9876
	42 0.9498		0.8604					
	RY LAYER		-					
	4 0.8032							
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	ALL		-					
201-20	06 1944 . 4	1957.7	1961.0	N.G.	1934.5	N.G.		
RAKE BI	JLLET							
207-2	12 1892.2	1896.4	1896.4	1898.	1890.2	N.G.		
TOP								
213-22	20 1767.1	2077.9	N.G.	1791.9	1778.7	1813.9	1829.2	1849.2
221-22	24 1868 4	1977.7	1980.8	1976.9				
SIDE								
225-23	32 2127.1	1/51.5	1500.7	1515.5	1675.3	1718.5	1736.0	1784.0
233-23	86 1810.8	N.G.	1968.1	1987.0				
SPLITTE	R							
237-24	4 2129.9	N.G.	N.G.	1973.5	1947.2	1961.0	1943.5	1919.8
245	1913.0							
BOTTOM								
301-30	8 N.G.	1812.5	1830.1	1841.9	1850.3	1886.7	1941.7	1958.0
309	1959.8							
		STATIC	PRESSUR	E COEFFI	CIENTS.	ÇP		
NACELLE	TOP							
310-31	7 N.G.	-0.384	N.G.	N.G.	N.G.	P.O.	P.O.	N.G.
318-32	O N.G.	-0.290	-0.210					
NACELLE	SIDE							
321-32	B N.G.	0.501	0.351	0.205	0.124	-0.006	-0.090	N.G.
329	-0.260							
CANOPY								
330-33	4 N.G.	-0.147	N.G.	N.G.	-0.084			
CANUPY	CENTER LI	INE						
335-34	2 0.534	-0.158	P.O.	P.O.	P.U.	P.O.	0.036	0.335
CANOPY	SIDE							
343-34	4 0.043	0.356						

#### INLET PRESSURE SURVEY 1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

RUN

CTOL FLIGHT REGIME

RUN 3 PT 36					LONG SPI		IVE	
Δ	LPHA	BETA	МО	M/M*	LP	RF	ь вь	H
					0.51			
NR		PSC			K	L	WC	M/MO
1.000	= -	5 2075		_	0.95	0.40	_	
2000								
THE T DA	le l	ATOT	L PRESSU	JRE RATIO	OS+ PT/P	то		
INLET RAI		0.0063	A 4021	0.0036	1 0011	1 0011	1 0010	N G
101-108		0.9963	0.9921	0.9936	1.0011	1.0011		N.G.
109-116	_			1.0013	1.0011	1.0016	1.0011	1.0014
117-124	-	-		N.G.	1.0012	1.0013	1.0013	1.0016
125-130	-	N.G.	1.0013	1.0012	1.0011	1.0011		
BOUNDARY			0 9053	N 6	0 4542	<b>A</b> 1. C	0.9746	0.0202
			0.8952		0.8543	N.G.	0 6 9 7 4 6	0.9293
	-	0.8556	0.8385	0.8396				
BOUNDARY								
143-144	0.8117	0.7199						
DAKE WALL		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WALI		2077 0	2070 1	N. C	2070 4	N.G.		
201-206		2077.9	2079.1	N.G.	2070.6	NeGe		
RAKE BULI		2050 1	2050 6	5	2010	• •		
207-212	2057.9	2058.7	2059.9	2060.7	2050.0	N.G.		
TOP	1 4 0 2 4	2101 0	<b>A</b> 1 /	2010	2024 ()	2020	2022 2	2014
213-220		2131.0	N.G.	2048.6	2024•9	2030.2	2032.2	2036.7
221-224	2041.8	2086.1	2087.0	2085.8				
SIDE		20.65			3.64.6		1000 7	
225-232			1958.2		1963.6	1989.3	1992.7	2010.7
	2020.9	N.G.	2079.6	2090•4				
SPLITTER	. 101 0			2004 2	2001 0	2011	00.70	
237-244		N.G.	N • G •	2096.0	2085.3	2086.4	2078.5	2070.0
	2133.0							
BOTTOM	<b>A</b> 1. (	2016 1	2002 2	2020 0	14.21.4	3012 5	2010	2074
		2045.0	2033.2	2030.9	2031.4	2043.5	2009.1	2075.4
309	2078.5							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE								
310-317	N.G.	-1.413	N.G.	N.G.	N.G.	P.0.	P.O.	N.G.
318-320	N.G.	-0.301	-0.213					
NACELLE S	SIDE							
321-328	N.G.	0.236	0.164	0.042	-0.013	-0.097	-0.138	N.G.
329	_							
CANOPY S	DE							
330-334	N.G.	-0.141	N.G.	N.G.	-0.022			
CANOPY CE	INTER LI	NE						
335-342	0.537	-0.151	P.0.	P.0.	P.U.	P.U.	0.158	0.437
CANOPY SI	IDE							
343-344	0.140	0.447						

RUN 3 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, PT 37 BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA 0•11	BETA -0.02	M0 0•598	M/M* 0•312	LP 0•51	RP 0•5	_	
NR	PTC				K 0.51		WC OF L	M/MO
1.001	2134		.1 208		0.34	L 0•40		
1,001	2134	2001	200	20)	0.54	0.40	0.77	00312
		TOTA	PRESSI	RE PATIO	DS. PT/P	Τn		
INLET R	AKE	1017	L TRESSO	WE WALL	330 1171	10		
	8 0.9988	0.9999	1.0004	0.9977	1.0008	1.0008	1.0007	N.G.
	6 1.0007		1.0007	1.0008	1.0008	1.0011	1.0007	1.0010
_	4 1.0008		1.0008	N•G•	1.0007	1.C008	1.0007	1.0008
	0 1.0007		1.0006	1.0007	1.0008	1.0008	10000	1.0000
	Y LAYER !		10000	100001	1,0000	10000		
131-13			0.9143	N.G.	0.8830	N.G.	0.9830	0.9510
	2 0.9161		0.8900	0.8765	00000		007030	007710
	Y LAYER I		0.0000	0.0103				
	4 0.8719							
143-14	4 0 60 119	0.7700						
		TNI	ET STATI	C PRESSI	JRES. PS			
RAKE WA	1 1	1112	CI SIAII	C / KES.50	JALSY 15			
	6 2085.6	2089.5	2090.9	N.G.	2082.5	N.G.		
RAKE BU		200107			200203	11000		
-	2 2073.4	2074.3	2074.8	2074.6	2067.2	N.G.		
TOP				2011.00	200,02	11000		
	0 1365.0	2109.6	N.G.	2105.0	2089.2	2087.3	2084.2	2083.9
	4 2083.9	2096.0	2096.3	2094.9	200,02	200.03	200102	200307
SIDE	. 2003()		207003	20,10,				
225-23	2 1463.8	2099.4	2135.0	2118.9	2103.6	2095.2	2088.7	2084.2
	6 2083.0	N•G•	2094.9	2101.7				
SPLITTE		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	20000	1. 10 10 1				
	4 2135.0	N.G.	N.G.	2076.8	2075.7	2084.2	2083.0	2078.2
245	2133.0	.,,,,,						20.002
BOTTOM								
	B NaGa	2114.3	2103.1	2096.0	2093.6	2086.7	2088.7	2090.5
309								20,000
307								
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP	• • • • • • • • • • • • • • • • • • • •						
310-31		-1.353	N.G.	N.G.	N.G.	-0.441	-0.370	N.G.
	Ü N.G.							
NACELLE								
	-	-0.956	-0.634	-0.636	-0.590	-0.494	-0.342	N.G.
	-0.342							
CANOPY								
	4 N.G.	-0.311	N.G.	N.G.	-0.048			
	CENTER LI	-						
			-0.549	-0.744	-0.581	-0.387	0.144	0.409
CANUPY	SIDE							
343-34	4 0.114	0.360						

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 38 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	МО	M/M*				
	0.11	-0.02	_					
NR	PTC		PS		K	L	WC	
1.000	2133	·2 1988	•6 197	8.0	1.36	1.14	1.31	0.634
		TOTA	L PRESSU	IRF RATIO	OS. PT/P	To		
INLET R	RAKE					. •		
	8 0.9971	0.9983	1.0000	0.9876	1.0008	1.0004	1.0010	N.G.
	6 1.0010		1.0008	1.0011	1.0008	1.0012	1.0008	1.0008
_	4 1.0007		1.0010	N.G.	1.0006	1.0010	1.0007	1.0008
	0 1.0008		1.0008	1.0001	1.0010	1.0010	•	
	Y LAYER							
131-13	-		0.9634	N.G.	0.8996	N.G.	0.9993	0.9947
	2 0.9670		0.9010	0.8831				
	Y LAYER		•					
	4 0.8716							
		INL	ET STATI	C PRESSI	JRES. PS			
RAKE WA	\LL	•						
	6 1983.6	1994.9	2000.0	N.G.	1975.7	N.G.		
RAKE BL		-			-			
	2 1944.7	1947.8	1952.0	1949.8	1941.0	N.G.		
TOP								
	0 1671.1	2127.6	N.U.	1972.1	1954.8	1963.3	1961.6	1964.7
	4 1969.0	2014.7	2016.1	2011.6				
SIDE								
	2 1856.3	2131.3	2058.7	1984.2	1970.1	1960.5	1949.5	1951.4
	6 1953.1	N.G.	2011.9	2032.2			•	
SPLITTE		.,						
	4 2135.5	N.G.	N.G.	1962.5	1959.9	1981.1	1979.1	1963.6
245	2133.0							
BOTTOM								
	8 NaGa	2002.8	1996.7	1993.1	1989.5	1981.1	1994.1	1999.5
309	2000.0							
307								
		STATIC	PRESSUR	+ COLFFI	CIENTS.	CP		
NACELLE	TOP					•		
. —		-0.687	Naua	N.U.	N.G.	-0.422	-0.352	N.G.
	0 N.G.		-0.146					
NACELLE								
	_	-0.534	-0.429	-0.455	-0.453	-0.427	-0.310	N.G.
329						••••		
CANOPY								
330-33		-0.320	N.G.	N.G.	-0.097			
	CENTER LI		• • •					
			-0.564	-0.770	-0.617	-0.432	0.039	0.324
CANOPY					· · · · ·			T
	4 0.027	0.298						

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 39 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA		MO					
	0.11	-0.02	0.599		1.50			
NR	PTC				K	L	WC	M/MO
0.999	2130	•5 1856	9 183	86.6	3.30	2.08	1.74	0.840
		TOTA	I PRESSI	IRE RATIO	S. PT/P	TO		
INLET R	AKE	1017	L INESSE	ME MAIN	237 1171	. 0		
	8 0.9862	0.9964	0.9994	0.9682	1.0010	1.0008	1.0007	N.G.
	6 1.0008		1.0008			1.0012		1.0011
	4 1.0008	•		N•G•		1.0008	1.0008	1.0000
	0 1.0006	-	1.0008	1.0007		1.0010	•	
	Y LAYER F							
131-13	8 N.G.	0.9983	0.9808	N.G.	0.9050	N.G.	0.9998	0.9986
139-14	2 0.9832	0.9529	0.9082	0.8819				
BOUNDAR	Y LAYER L	DUCT						
143-14	4 0.8686	0.7907						
_		INL	ET STATE	C PRESSU	JRES PS			
RAKE WA								
	6 1847.5	1867.9	1878.3	N.G.	1834.0	N.G.		
RAKE BU		1770 7	1707	1 740 0	1770 (	<b>A</b> 1 (		
	2 1771.9	1778.7	1784.9	1780.9	1770.5	N.G.		
TOP	0 1909.9	2058 • 2	N.G.	1772.2	1764.3	1793.3	1798.1	1010 0
	4 1820.4	1908.8	1910.2	1900.3	110403	177343	179011	1810.0
SIDE	4 102064	1700.0	191002	190065				
	2 2046.0	2057.6	1876.3	1764.0	17/7.2	1777.0	1767.9	1773.6
233-23		N.G.	1903.7	1940.7	12	1	1.0.0	111700
SPLITTE		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
	4 2135.0	N.G.	N.G.	1809•1	1800•7	1847.0	1841.3	1813.7
245	1807.2							
BOTTOM								
301-30		1856.5	1862.1	1564.4	1861.6	1852.4	1872.9	1880.8
309	1881.0							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE			•.					•
310-31			N.U.	N.O.	N. U.	-0.354	-0.330	N.G.
318-32		<b>-0</b> .219	-0.143					
NACELLE			. 24.0	- 40 - 150 4	0 01 0	0 030	- 0 - 204	
321-32		-0.264	-0.262	-0.334	-0.359	-0.373	-0.296	N.G.
329	_							
CANOPY		-() 334	N - 6-	N. C.	-0.125			
330-33		-0.324	N. Ú.	N•G•	-0.125			
	CENTER LI		-0-671	-0-744	-0.638	-0.458	-0.025	0.220
CANOPY		-00172	-00011	-0 - 10 3	0 0 0 0 0	- 🗸 🖟 🖰 🖰 0	-00025	0.220
-	4 -0.025	0.214						
J+J-J4	- J.J.	V#217						

RUN 3 BASIC CANOPY + 24E OVAL INLET + LONG SPLITTER + PT 40 BOUNDARY LAYER DUCT OPEN + BOTH ENGINES OPERATIVE

١.

	ALPHA				LP	RP	ВР	
	-0.05	-0.02	U.599	0.815	2.00	2.00	) OPE	N
NR					K		WC	M/M0
0.996	2124	<b>8</b> 1732	•3 169	9.5	6.60	2.91	2.01	0.969
		TOTA	L PRESSU	RE RATIO	OS. PT/P	ΤΟ		
INLLT F	RAKE							
101-10	08 0.9665	0.9918	0.9940	0.9354	1.0006	1.0006	1.0006	N.G.
109-13	16 1.0005	0.9946	1.0006	1.0008	1.0006	1.0011	1.0006	1.0008
117-12	24 1.0006	1.0011	1.0007	N.G.	1.0001	1.0008	1.0004	1.0007
125-13	30 1.0005	N.G.	1.0004	1.0006	1.0006	1.0006		
BOUNDAR	RY LAYER F	RAKE						
131-13	88 N.G.	0.9992	0.9874	N.G.	0.9082	N.G.	1.0000	0.9992
	+2 0.9890		0.9121					
	RY LAYER I							
143-14	4 0.8637	0.7902						
		-						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	ALL	•						
	6 1717.7	1747.0	1763.1	N.G.	1701.3	N.G.		
RAKE BL								
	2 1604.2	1616.3	1624.5	1616.	1602.5	N.G.		
TOP		101000		.020	10010			
	20 2033.3	1954.0	N.G.	1566.3	1576.8	1628.4	1644.3	1661.5
	4 1678.1	1810.3	1812.3	1796.7	15.000	10100	101103	100107
SIDE	.4 10/011	101013	101243	117001				
	2 2113.8	1949.5	1679.3	1534.4	1582.4	1594.6	1592.0	1602.7
	6 1620.3	N • G •	1604.3		130244	137460	137200	1002.
SPLITTE		1400	100403	103460				
	4 2133.8	N.G.	N.G.	1669.1	1654.7	1724.4	1717.9	1674.7
245		14000		1007	103461	112444	11110	101401
BOTTOM	1005.5							
301-30	18 N.G.	1715.6	1734.0	1740.3	1738.3	1728.6	1760.6	1770-8
309		1715.0	11340	174005	17,000	172000	1700.0	1770.0
309	111201							
		STATIC	Docesio	COEFE!	CICNEC	CD.		
NACELLE	TOF	STATIC	PRESSUR	E COEFFI	CIENTS	CP		
	7 N.G.	-0-131	Nata	Na(sa	N. G.	-0.306	-0.315	N.G.
	O N.G.	•	-0.140	1100	14.0.	-0.500	-0.515	14.0.
NACELLE		-0.213	-01140					
		-11.1195	-0-156	-0.263	-0.293	-0-222	-0-274	N.G.
	-0.310	-0.093	-0.136	-00233	-00273	-00555	-00214	14.0.
CANOPY	NoGe	-(). 225	N.G	N = C	-0 1/2			
	CENTER LI	•		14.0.0	-0 • 1 • 5			
			-0.576	•0 - <b>1</b> 0 )	-0.648	-0.472	-0.043	0 - 1 / 0
		00174	0.515	-00172	-0.040	0.412	-0.003	0.140
CANOPY		0 157						
545-54	4 -0.056	0.154						

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 41 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

ALPHA BETA MO M/M\* LP RP BP

	-0.67	-0.01	0.599	U.877	2.51	2 • 5	O OPE	N
NR	PTC	PSC	PS	68 68	K	L	WC	M/M0
0.994	2120	PSC •2 1636	•0 159	11.5	8.64	3 • 48	2.16	1.043
						_		
		TOTA	L PRESSU	JRE RATIO	DS. PT/P	TO		
INLET RA	KE							
101-108	0.9483	0.9812	U • 9890	0.9152	1.0010	1.0008	1.0008	N.G.
		0.9876						
		1.0010					1.0008	1.0008
					1.0006			
BOUNDARY			-					
131-138	N.G.	0.9994	0.9902	N.G.	0.9097	N.G.	1.0000	0.9995
139-142				0.8801				
BOUNDARY	-							
143-144								
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WAL	L							
201-206		1653.9	1673.9	N.G.	1600.2	N.G.		
RAKE BUL								
207-212	1472.3	1489.0	1499.7	1487.3	1467.5	N.G.		
TOP								
213-220	2083.6	1874.6	N.G.	1405 • 1	1424.0	1500.8	1521.1	1548.3
221-224			1739.4	1718.2				
SIDE								
225-232	2130.7	1869.3	1536.4	1351.2	1424.6	1461.3	1460.7	1473.1
233-236	1495.2	N.G.	1732.1	1791.6				
SPLITTER				-				
237-244	2134.7	N.G.	N.U.	1566.0	1545.	1633.2	1625.3	1571.1
245	1560.7							
BOTTOM								
301-308	N.G.	1603.5	1637.0	1646.2	1644.4	1632.7	1677.7	1690.2
309								
-	20,10							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP					_		
310-317		-0.021	N.G.	N.G.	N.G.	-U.281	-0.308	N.G.
318-320			-0.142					
NACLLLE								
		-0.010	-0.097	-0.211	-0.260	-0.314	-0.266	N. G.
329								
CANOPY S								
330-334		-0.328	N. G.	N.G.	-0.155			
CANOPY C								
			-0.580	PaOa	-0.659	-0.484	-0.087	0.091
	-0.076	0.117						
CANOPY S		U•117						

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 42 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA -0.01			LP			
NR		PSC			K 2031	L	WC	M/M0
U.994	_	5 1629					2.17	
0 6 9 9 4	2120	1027	• 4 150	72 • 7	0 6 7 2	J • J 2	2011	10040
		TOTA	I PRESSI	IRE RATTO	DS. PT/P	TO		
INLET	RAKE	1012	E TRESCE	NC NAIL		. 0		
	08 0.9332	0.9815	0.9929	0.9144	1.0004	1.0006	1.0000	N.G.
	16 1.0005			1.0010	1.0006	1.0011	1.0005	
	24 1.0007		_	N.G.		1.0008	1.0007	1.0008
	30 1.0006			1.0008		1.0006	10001	140000
	RY LAYER		1.0000	1.0000	1.0000	1.0000		
131-1		_	0.0000	N.G.	0.9321	N.G.	1.0002	1.0004
	42 0.9993	_	0.9381	0.8961	0.7521	11.0.	1.0002	1.0004
	RY LAYER (		0 6 7 3 6 1	0.0301				
	44 0.8704							
143-1	44 0.6704	0.1099						
		TAIL	ET CTATE	C DDECCI	IDEC. DC			
RAKE W	A. I.	INL	EI SIAII	C PRESSU	JRES. PS			
	MLL U6 1609.7	1646.9	1667.8	N.G.	1502.2	N.G.		
RAKE BI	-	1040 6 7	10010	N•G•	137363	N.G.		
	12 1461./	1478.9	1490.0	1476.4	14.54.4	AL C		
TOP	12 1401.7	14/0.7	147000	14/0.4	1456.6	N.G.		
• -	20 2121 0	1704 2	A) C	1222 /	1271 /	17.75 0	1409 4	1527.8
	20 2121.9			1332.4	1371.4	1475.8	1498.4	1327.0
	24 1552.4	1732.2	1733.3	1712.2				
SIDE	22 1117 6	1004 1	1574 0	1271 0	1/21 0	1450 7		1442
	32 2117.6			1371.9	1431.8	1450.7	1454•4	1462.6
	36 1485.2	N.G.	1726.3	1787.8				
SPLITTE		A) C	N. C	15/5/	15/1 2	1/20/	1/10 2	15/0/
	44 2136.3	N.G.	N.G.	1565.6	1541.5	1628.6	1619.3	1563.4
245	1553.5							
POTTOM	20 41 6	1507 (	16/2	1444	1.4.0	1/2/2	1 71 0	1400 0
		1597.6	1643.1	1648.0	1642.6	1624 • 2	10/1.0	1683.8
309	1684.6							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE								
		0.143		N.G.	N.G.	-0.202	-0.272	N.G.
		-0.215	-0.151					
NACELLE			=					
		-0.151	-0.214	-0.317	-0.360	-0.406	-0.324	N.G.
329								
CANOPY								
	34 N.G.		N.G.	N.G.	-0.161			
	CENTER LI							
	+2 0.585	-0.062	-0.476	-0.710	-0.607	-0.456	-0.083	0.086
CANOPY								
343-34	4 -0.072	0.107						

RUN 3 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA	BETA -0.01	M0 0∙599	M/M* 0•822	LP 1•99	RP 2 • 00	BP O OPE	
NR	PTC		PS		K	L	WC	M/MO
0.996		9 1724	_	_	6.22	2 • 84	2.03	
		TOTA	L PRESSU	RE RATIO	OS. PT/P	TO		
INLET R								
101-10	8 U.9547	0.9909	U.9978	0.9391	1.0006	1.0007	1.0008	N. G.
	6 1.0006	0.9984	1.0004	1.0006	1.0006	1.0011	1.0007	1.0010
_	4 1.0007	1.0010	1.0006	N.G.	1.0008	1.0008	1.0007	1.0008
	0 1.0004	N.G.	1.0007	1.0010	1.0006	1.0010		
BOUNDAR	Y LAYER P	RAKE						
131-13		1.0001	0.9986	N.G.	0.9309	N.G.	1.0003	1.0004
139-14	2 0.9990	0.9865	0.9363	0.8968				
BOUNDAR	Y LAYER (	JUCT						
143-14	4 0.8745	0.7911						
		7 414	CT CTATI	C DDECC	יהבנ. הנ			
RAKE WA		INL	EI SIAII	C PRESSU	JRES PS			
	6 1708.9	1740.0	1754.1	N.G.	1693.7	N.G.		
RAKE BU		114000	112441	1100	10/30/	11000		
	2 1592.0	1604.5	1609.6	1604.5	1590.9	N.G.		
TOP	2 1372.00	100463	100760	100463	10,000	1100		
	0 2095.5	1885.4	N.G.	1494.9	1524.8	1598.5	1616.0	1635.0
	4 1658.7	1803.2	1805.5	1788.6	172400	10,000	101000	103340
SIDE	4 1030	100362	100565	170040				
	2 2092.1	1977.7	1707.5	1541.2	1578.5	1582.4	1572.8	1588.1
	6 1603.3	N•G•	1797.9	1850.7	13.003	170244	13.200	130041
SPLITTE		N.O.	1/7/07	102001				
	4 2137.0	N.G.	N.G.	1666.6	1646.8	1718.8	1709.5	1665.5
245	1655.6	14.00		1000	1040.0	111000	110703	100000
BOTTOM	100000							
	H N.G.	1711.4	1/32.1	1736.0	1732.6	1716.3	1751.6	1763 a H
	1764.6	1,1104	113201	1,3000	113200	171003	113100	110340
309	1704.0							
		STATIC	PRESSUR	L COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 N.G.	0.060	N.G.	NoG.	N.G.	-0.221	-0.277	N.G.
	O N.G.							
NACELLE								
		-0.239	-0.270	-0.357	-0.392	-0.424	-0.330	N.G.
329	-0.328							
CANOPY								
		-0.271	N.G.	N.G.	-0.150			
	CENTER LI							
		-0.059	-0.469	-0.701	-0.597	-0.443	-0.060	0.137
CANOPY								
	4 -0.053	0.145						

0.0

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 44 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RF	Р ВР	ı
	-2.24	-0.01	0.600	0.714	1.50	1.5	OPE	N
NR	PTC	PSC	PS	88	K			M/MO
0.999	2132	5 1851	.4 182	9.6	2.67	2.11	1.76	0.849
		TOTA	L PRESSU	RE RATIO	DS. PT/P	TO		
INLET R	AKE							
101-10	8 0.9793	0.9952	0.9995	0.9745	1.0011	1.0008	1.0006	N.G.
109-11	6 1.0008			1.0010		1.0012	1.0008	1.0011
	4 1.0007	-		N.G.		1.0008	1.0008	1.0010
	0 1.0007			1.0011		1.0011		
	Y LAYER							
	8 N.G.		0.9971	N.G.	0.9271	N.G.	1.0004	1.0004
	2 0.9979		0.9321	0.8974	007212	.,,,,,		
_	Y LAYER I			0007.4				
	4 0.8793	_						
177 17	- <b>0</b>	00//10						
		TAIL	ET STATI	r DDFCCI	JRES. PS			
RAKE WA		INL	EI SIAII	C PRESSO	TREST FS			
	6 1842.2	1862.0	1873.3	N.G.	1828.4	N.G.		
RAKE BL		100240	101363	11000	102004	1100		
	2 1762.9	1770.8	1774.2	1772.5	1742.2	N.G.		
TOP	2 1/02.5	1110.0	111462	111205	1/0243	NOGO		
	0 2004.3	2013.9	N.G.	1722.5	1730•4	1768.8	1780.9	1793.6
		1903.8		1895.3	173004	170000	170009	177300
	4 1805.5	190340	190367	103363				
SIDE	2 2000 2	2074 0	1400 0	1776 6	1 <b>77</b> 0 /	1771 2	1754 0	1746 4
	2 2004.3				1778•4	1//1.5	1/20.4	1765.4
	6 1772.5	N.G.	1899.8	1935.1				
SPLITTE		A. C	A	1007 0	1705 2	10/2 0	1007 7	1007 0
	4 2137.5	N.G.	N.G.	1801.08	1795•3	1843.9	183/0/	1807.2
	1799.9							
BOTTOM			. 0.5 / /	• • • • •		• • • • •	1044 7	
301-30		1849.0	1858.0	1861.0	1857.2	1844.9	1866.7	1875.1
309	1876.9							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE								
	7 N.G.			N.G.	N.G.	-0.268	-0.293	N.G.
	0 N.G.	-0.220	-0.152					
NACELLE								
321-32		-0.419	-0.385	-0.441	-0.460	-0.466	-0.350	N.G.
329	-0.336							
CANOPY								
	4 N.G.		N.G.	N.G.	-0.133			
	CENTER L							
	2 0.587	-0.056	-0.466	-0.694	-0.586	-0.429	-0.021	0.221
CANOPY	_							
343-34	4 -0.022	0.210						

#### INLET PRESSURE SURVEY

1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

#### CTOL FLIGHT REGIME

HUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 45 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA -2.25	BETA -0.01	M0 U•600	M/M*		RP 1•0	_	N
NR		PSC			K	L		M/MO
1.000	_	2 1986					1.33	
		TOTA	L PRESSU	RE RATIO	S. PT/P	0		
INLET R	AKE							
101-10	8 0.9939	0.9986	0.9998	0.9903	1.0006	1.0008	1.0007	N.G.
169-11	6 1.0008	1.0010	1.0008	1.0011	1.0006	1.0012	1.0011	1.0010
117-12	4 1.0010	1.0011	1.0011	N.G.	1.0008	1.0000	1.0008	1.0008
125-13	0 1.0008	N.G.	1.0008	1.0011	1.0010	1.0012		
BOUNDAR	Y LAYER !	KAKE						
131-13	8 N.G.	1.0000	0.9907	N. U.	0.9214	N.G.	1.0003	1.0002
139-14	2 0.9928	0.4605	0.4243	0.0986				
HOUNDAR	Y LAYER D	DUCT						
143-14	4 0.8824	0.7926						
		INL	ET STATE	C PRESSU	RES. PS			
RAKE WA	LL							
201-20	6 1981.7	1993.0	1997.8	N.G.	1973.2	N.G.		
RAKE BU	LLET							
207-21	2 1941.9	1944.7	1947.2	1946.7	1938.8	N.G.		
TOP								
213-22	U 1773.9	2119.2	N.G.	1953.7	1943.0	1954.0	1955•1	1959.7
221-22	4 1963.9	2013.3	2014.7	2009.9				
SIDE								
225-23	2 1773.9	2136./	2078.0	2000•3	1979.4	1967.0	1954.9	1953.2
233-23	6 1953.4	N.G.	2011.0	2031.1				
SPLITTE	R							
237-24	4 2137.5	N.G.	N.G.	1961.1	1955•7	1980.0	1976.9	1961.1
245	2135.0							
BOTTOM								
301-30	8 N.G.	1999.4	1995 • 1	1993.5	1989.7	1982.0	1992.3	1995.8
309	1998.1							
		STATIC	PRESSUR	L COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 N.G.	-0.381	N.G.	N.G.	N.G.	-0.343	-0.315	N.G.
318-32	0 N.G.	-0.223	-0.154					
NACELLE	SIDE							
321-32	8 N.G.	-0.727	-0.575	-0.574	-0.561	-0.515	-0.365	N.G.
329	-0.344							
CANOPY	SIDE							
330-33		-0.262	N.G.	N.G.	-0.103			
CANOPY	CENTER LI	NE						
335-34	2 0.586	-0.051	-0.455	-0.676	-0.562	-0.400	0.045	0.340
CANOPY	SIDE							
343-34	4 0.032	0.305						

#### INLET PRESSURE SURVEY 1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 46 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

ALPH		МО	M/M*	LP	RP	_	
-2.2!				0.50			
NR	PTC PS	_		K	L	WC	M/MO
1.001	2136•3 208	7.5 208	13.1	0.29	0.42	0.78	0.377
	101	AL PRESSU	RE RATIO	05. PT/P	10		
INLET RAKE							
101-108 0.9			0.9983	1.0011	1.0010	1.0007	
109-116 1.0			1.0011	1.0006	1.0012	1.0008	1.0011
117-124 1.0			N.G.	1.0010	1.0008	1.0010	1.0008
125-130 1.0		1.0010	1.0010	1.0008	1.0008	•	
BOUNDARY LAY							
	N.G. 0.9924		N.G.	0.9091	N.G.	0.9999	0.9937
	9655 0.9379	0.9081	0.8968				
BOUNDARY LAY							
143-144 0.1	8819 0.7920						
	IN	LET STATI	C PRESSU	JRES. PS			
RAKE WALL							
201-206 208	86.4 2089.5	2091.5	N.G.	2082•5	N.G.		
RAKE BULLET							
207-212 201	73.2 2074.0	2074.0	2075.1	2067.5	N.G.		
TOP							
213-220 143				2085.9	2085.3	2082.8	2082.8
221-224 208	83.0 2095.8	2097.2	2095.2				
SIDE							
225-232 136	61.6 2084.2	2136.4	2124.8	2108.5	2098.3	2088.1	2086.7
233-236 208	84.2 N.G.	2095.8	2102.8				
SPLITTER							
237-244 213	37.8 N.G.	N.G.	2078.0	2076.0	2082.8	2083.6	2079.7
245 207	77.7						
BOTTOM							
301-308	N.G. 2104.8	2096.6	2093.8	2091.0	2086.1	2089.5	2091.5
309 209	91.0						
	STATI	C PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE TOP					-		
	N.G1.333	N.G.	N.G.	N.G.	-0.416	-0.345	N.G.
318-320 A		-0.158					
NACELLE SIDE							
	N.G1.218	-0.787	-0.778	-0.722	-0.604	-0.396	N.G.
329 -0	-		- 5 5				
CANOPY SIDE							
	N.G0.258	N.G.	N.G.	-0.064			
CANOPY CENTE							
	590 -0.046	-0.444	-0.657	-0.533	-0.363	0.136	0.459
CANOPY SIDE		• • • •					J - 700
	107 0.402						
J. J J. 4							

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 47 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA 4•24	BETA -0.02	M0 0•599	M/M* 0•298	_		_	
NR	PTC				K	L	WC	M/MO
0.970	2071	•9 2027		30.3	0.99	0.26	0.74	0.354
		TOTA	L PRESSU	JRE RATIO	OS. PT/P	TO		
INLET R	AKE							
101-10	8 0.9666	0.9661	0.9654	0.9680	0.9718	0.9714	0.9697	N.G.
109-11	6 0.9662	0.9681	0.9721	0.9724	0.9711	0.9703	0.9672	0.9680
117-12	4 0.9723	0.9730	0.9723	N.G.	0.9685	0.9685	0.9724	0.9732
	0 0.9739		0.9716	0.9723	0.9745	0.9750		
-	Y LAYER							
	8 N.G.		_	N.G.	0.7809	N.G.	0.7552	0.7573
	2 0.7614		0.7751	0.7756				
	Y LAYER I							
143-14	4 0.7785	0.7689						
		INL	ET STATI	C PRESSI	JRES. PS			
RAKE WA								
	6 2025.4	2028.3	2030.8	N•G•	2026•3	N.G.		
RAKE BU								
_	2 2008.2	2010.8	2014.4	2009.9	2003.4	N.G.		
TOP		207/ 2	N 6	10/2 1	1072	1001 6	1021 (	10/1 0
	0 1743.7		N.G.	1863.1	1873.3	1901.5	1921.0	1941.9
SIDE	4 1952.3	2018•1	2026.9	2030.5				
225-23	2 1955.4	2021.2	1906.6	1862.2	1904.9	1932.6	1949.2	1956.0
233-23	6 1965.1	N.G.	2023.8	2033.4				
SPLITTE								
	4 2022.3	N.G.	N.G.	2007.7	2011.6	2020.9	2024.9	2019.8
245	2021•2							
BOTTOM			1017 5	10/2 2	1050	2000 2	2010	2024 0
		18/3.8	1916.5	1943.2	1959•3	2000.2	2019.1	2024.8
309	2027.8							
		STATIC	PRESSUR	E COEFFI	CIENTS.	СР		
NACELLE				T			<b>-</b>	
310-31				N.G.	N.G.	-0.514	-0.394	N.G.
	0 N•G•	-0.224	-0.136					
NACELLE	<del>-</del>		0.004	0 / 0 1	0 4 3 3	0 071	0.254	
321-32		-0.419	-0.386	-0.421	-0.411	-0.371	-0.256	N.G.
329	-0.304							
CANOPY	5 1 DE 4 N•G•	-0.340	N.G.	N.G.	0.040			
	CENTER L		14.50		01070			
			-0-604	-() - 742	-0.485	-() - 189	0.104	-0.006
CANOPY		71210	J	00172	V • 403	94107		
_	4 0.074	-0.138						
J.J. J.								

RUN 3 BASIC CANOPY • 24E OVAL INLET • LONG SPLITTER • BOUNDARY LAYER DUCT OPEN • BOTH ENGINES OPERATIVE

0

	ALPHA	BETA		M/M*	LP	RP		
5	4.24				1.00			
NR	PTC				K	L	WC	M/MO
1.000	2134	0 1991	• 4 198	1.3	1.95	1.10	1.31	0.628
		***	. 50.566.					
		TOTA	L PRESSU	RE RATIO	OS. PT/P	10		
INLET F								
	8 0.9981		0.9995		1.0006	1.0007		N.G.
	6 1.0004		1.0004	1.0005	1.0008	1.0008	1.0006	1.0006
117-12	4 1.0008	1.0004	1.0007	N.G.	1.0005	1.0007	1.0002	1.0007
125-13	1.0005	N.G.	1.0006	1.0008	1.0006	1.0008		
BOUNDAR	Y LAYER I	RAKE						
131-13	18 N.G.	0.9517	0.9236	N.G.	0.8768	N.G.	0.9905	0.9649
139-14	2 0.9265	0.9014	0.8773	0.8675				
BOUNDAR	Y LAYER (	DUCT						
143-14	4 0.8560	0.7858						
		INL	ET STATI	C PRESSI	JRES PS			
RAKE WA	LL							
	6 1985.9	1998.1	2002.6	N.G.	1979•1	N.G.		
RAKE BL								
	2 1947.8	1951.8	1954.6	1953.4	1945.0	N.G.		
TOP		1,,,,,,	177,00	1,,,,,	1,4500	11000		
	0 1577.4	2134.2	N.G.	1996.6	1971.5	1974.9	1971.2	1973.5
	4 1975.8	2017.3		2013.9	191107	171407	17/102	17/303
SIDE	.4 1915.0	201103	2010 1	201367				
	2 1926.3	2127.4	2042.7	1973.2	1966•4	1961.6	1955.7	1954.0
					190004	190100	199901	195480
233-23	<del>-</del>	N.G.	2014.2	2034.5				
SPLITTE		A) G	A) C	1062.6	1959•7	1084. 2	1001.7	1067 2
	4 2137.3	N.G.	N.G.	1963.6	193967	1904 6 2	190101	1967.3
245	2135.0							
BOTTOM		2024 2	0007				.007	2000
	8 N.G.	2024.0	2007.4	2001.2	1996•1	1988.4	1997.4	2002.8
309	2002.2							
		STATIC	PRESSUR	E COFFFI	CIENTS.	CP		
NACELLE								
310-31				N.G.	N.G.	-0.485	-0.376	N.G.
318-32	0 N•G•	-0.217	-0.132					
NACELLE	SIDE							
321-32	8 N.G.	-0.383	-0.324	-0.365	-0.369	-0.353	-0.268	N.G.
329	-0.327							
CANOPY	SIDE							
330-33		-0.368	N.G.	N.G.	-0.084			
CANOPY	CENTER LI	INE						
335-34	2 0.497	-0.230	-0.652	P.O.	-0.648	-0.442	0.047	0.306
CANOPY	SIDE							-
	4 0.036	0.289						

RUN 3 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RP	_	
	4.23	-0.02	0.600	0.697	1.50	1.5		
NR	PTC	PSC			K	L	WC	M/MO
0.998	2129	•8 1864	•4 184	5.4	4.73	1.99	1.72	0.828
						_		
		TOTA	L PRESSU	RE RATIO	DS. PT/P	TO		
INLET F						_		
	08 0.9907		0.9978	0.9539	1.0005	1.0007	1.0006	N.G.
109-1			1.0004	1.0006	1.0006	1.0011	1.0004	1.0000
117-12	24 1.0005	1.0008	1.0004	N.G.	1.0004	1.0004	1.0000	1.0001
125-13	30 1.0000	N.G.	1.000	1.0002	1.0000	1.0001		
BOUNDAR	RY LAYER I	RAKE						
131-13	88 N.G.	0.9820	0.9481	N.G.	0.8836	N.G.	0.9974	0.9865
139-14	2 0.9508	0.9199	0.8850	0.8669				
BOUNDAR	RY LAYER	DUCT						
143-14	4 0.8550	0.7870						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	ALL							
	6 1853.8	1875.2	1885.4	N.G.	1843.1	N.G.		
RAKE BU								
	2 1781.8	1788.8	1795.9	1790.5	1780.1	N.G.		
TOP								
-	20 1821.9	2088.1	N.G.	1812.3	1795.9	1814.0	1815.1	1823.0
	4 1830.9	1915.6	1917.3	1908.3		200.00		,
SIDE	.4 103047	1713.0	171103	1,000,				
225-23	2 2083.9	2035.3	1849.3	1751.0	1774.4	1780.4	1782.1	1780.7
233-23		N•G•	1911.7	1946.1	111404	110004	110201	110001
SPLITTE		N.O.	191101	174001				
	4 2137.8	AL. G	N.G.	1815.9	1810.0	1855.2	1850.7	1821.9
		N.G.	14.0.	101509	1810.0	100002	102001	102103
245	1815.9							
BOTTOM		1040 7	10/0 7	10/0 2	10// 7	10/0 2	1070 7	1000 0
301-30			1868.7	1869.2	1866.7	1860.3	18/9./	1888.2
309	1887.9							
		STATIC	PRESSUR	E COEFFI	CIENTS.	Ch		
NACELLE			17. %		7. 2			1. 121
310-31	.7 N.G.			N.G.	N.G.	-0.421	-0.355	N.G.
318-32	0 N.G.	-0.212	-0.129					
NACELLE								
321-32	8 N.G.	-0.122	-0.156	<b>-</b> 0.240	-0.270	-0.295	-0.256	N.G.
329	-0.316							
CANOPY								
330-33	4 NoGo	-0.372	N.G.	N.G.	-0.115			
	CENTER LI							
335-34	2 0.496	-0.233	-0.659	P.O.	-0.669	-0.469	-0.017	0.216
CANOPY	SIDE							
343-34	4 -0.018	0.219						

RUN	3	BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT	50	BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

		DANT ENTE	N JOE! O					
	ALPHA	BETA	МО	M/M*	LP	RP	ВР	
		-0.02			_	2.00	OPEN	
NR		PSC				L		M/MO
		9 1741				2.82		0.960
		TOTA	L PRESSU	RE RATIO	S. PT/P	ГО		
INLET R	AKE							
101-10	8 0.9778	0.9920	0.9907	0.9319	1.0007	1.0007	1.0007	N.G.
109-11	6 1.0007	0.9764	1.0008	1.0008	1.0006	1.0011	1.0008	1.0002
117-12	4 1.0006	1.0011	1.0008	N.G.	1.0006	1.0008	1.0006	1.0007
125-13	0 1.0007	N.G.	1.0007	1.0008	1.0008	1.0010		
BOUNDAR	Y LAYER	RAKE						
131-13	8 N.G.	0.9898	0.9586	N.G.	0.8858	N.G.	0.9983	0.9920
139-14	2 0.9611	0.9281	0.8879	0.8650				
BOUNDAR	Y LAYER	DUCT						
143-14	4 0.8493	0.7852						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	LL					#/_		
201-20	6 1726.4	1756.4	1771.1	N.G.	1711.2	N.G.		
RAKE BL	_							
	2 1616.0	1628.7	1638.1	1628.7	1615.2	N.G.		
TOP								
	0 1963.0		N.G.	1621.4	1615.8	1654.7	1663.5	1680.1
	4 1693.1	1818.5	1819.3	1804.7				
SIDE					_		_	
	2 2130.2			1519.5	1577.9	1604.5	1611.8	1613.5
	6 1630.4	N.G.	1812.0	1860.8				
SPLITTE								
	4 2135.8	N.G.	N.G.	1676.7	1663.8	1732.4	1726.4	1684.1
245	1675.6							
BOTTOM		1700 /	1707.6		. 7. 0 .	1700 0	.7.0 (	
301-30		1723.4	1/3/05	1744.4	1743.4	1738.8	1769.5	1779.4
309	1779.4							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE			A)	44				
310-31		-0.311	N.G.	N.G.	N.G.	-0.376	-0.342	N.G.
318-32		-0.210	-0.129					
NACELLE		0 001	0.057	0.140				
321-32		0.036	-0.05/	-0.163	-0.207	-0.257	-0.237	N.G.
329	-0.309							
CANOPY		-0 274	AL C	A1 C	0 125			
330-33		-0.376	N.G.	N.G.	-0.135			
	CENTER LI		-0 447	0.0	-0 494	-0 497	-0 050	0 1 1 0
	2 0.495	-0.230	-0.667	P.U.	-0.684	-0.487	-0.008	0.143
CANOPY		0 143						
343-34	4 -0.052	0.163						

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 51 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA -0.02	MO 0•601	M/M* 0•872	LP 2•53	RP 2•5			
NR	PTC				K	L	WC	M/MO	
0.994	2121			1.5		3.37	-	1.035	
06774	2121	2 1044	•0 100	1100	0.10	3031	2017	10000	
		TOTA	I DDCCCI	DE DATIC	OS PT/P	T ()			
INLET F		IOTA	L PRESSU	ME KAIL	73 F 17F	10			
	18 U.9564	0.9833	0.9821	0.9201	1.0005	1.0007	1.0008	N.G.	
	6 1.0006		1.0006	1.0006	1.0003	1.0007	1.0004	1.0000	
	4 1.0008		1.0006	_		1.0012	1.0008	1.0000	
	0 1.0007	N•G•	1.0008	N.G. 1.0011	1.0010	1.0008	1.0000	1.0011	
	Y LAYER I		1,0000	1.0011	1.0000	1.0000			
131-13			0.9643	N.G.	0.8873	N.G.	0.9986	0.9940	
	2 0.9664	0.9326	0.8895	0.8639	0.0013	14.00	0 9 9 9 0 0	089940	
			0.0095	0.0039					
-	RY LAYER (								
143-14	4 0.8439	0.7837							
5.45		INL	ET STATE	C PRESSU	JRES. PS				
RAKE WA									
	6 1623.9	1663.2	1681.3	N.G.	1609.8	N.G.			
RAKE BL	_								
	2 1483.6	1500.6	1511.3	1498.9	1479.7	N.G.			
TOP		1000	N. C			1505	15.0		
	0 2030.8	1939.9	N.G.	1468.4	1466.7	1525.1	1542.6	1564.9	
	4 1586.4	1745.1	1745.9	1727.6					
SIDE						= . =			
	2 2135.8	1827.5	1491.5	1329.5	1412.2	14/3.5	1470.6	1482.8	
_	6 1505.4	N.G.	1738.3	1796.2					
SPLITTE									
	4 2136.1	N.G.	N.G.	1572.3	1550.8	1640.6	1632.7	1579.6	
245	1570.6								
BOTTOM									
301-30		1615.5	1635.4	1649.5	1647•2	1642.1	1685.8	1698.6	
309	1697.3								
				= =					
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP			
NACELLE			a. =	7507	0.12				
310-31			N.G.	N.G.	N.G.	-0.345	-0.332	N.G.	
318-32		-0.206	-0.126						
NACELLE	SIDE								
321-32	8 N.G.	0.117	0.010	-0.115	-0.169	-0.233	-0.223	N.G.	
329	-0.303								
CANOPY SIDE									
330-33	_	-0.375	N.G.	N.G.	-0.145				
	CENTER LI								
335-34	2 0.495	-0.238	-0.668	P.O.	-0.690	-0.495	-0.080	0.098	
CANOPY	SIDE								
343-34	4 -0.071	0.129							

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 52 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	МО	M/M*			_	
	2.29							
NR	· -		PS		K	L	WC	M/M0
0.991	2114	•0 1642	•2 159	08.0	7.93	3.15	2.15	1.032
		TOTA	L PRESSU	RE RATIO	OS. PT/P	TO		
INLET								2
	08 0.9365		0.9441	0.9226	1.0008	1.0008	1.0005	
	16 1.0004		1.0006			1.0011	1.0005	1.0004
_	24 1.0007	_	1.0006	N•G•	1.0005	1.0008	1.0007	1.0007
	30 1.0007		1.0008	1.0007	1.0006	1.0008		
	RY LAYER					_		
	38 N.G.			N.G.	0.9091	N • G •	0.9996	0.9994
	42 0.9915		0.9138	0.8785				
	RY LAYER							
143-14	44 0.8462	0.7859						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE W								
201-20	06 1624.9	1661.3	1674.6	N.G.	1608.0	N.G.		
RAKE BI								
207-2	12 1480.9	1496.2	1506.9	1493.9	1476.1	N.G.		
TOP								
213-2	20 2096.4		N.G.	1292•3	1309.8	1427.8	1465.7	1503.5
221-2	24 1535.1	1738.7	1739.3	1721.8				
SIDE								
225-23	32 2115.6	1612.5	1199.7	1009.4	1113.9	1351.9	1373.6	1408.1
233-23	36 1447.0	N.G.	1729.4	1777.1				
SPLITTE	ER							
237-24	44 2136.5	N.G.	N.G.	1602.9	1571.8	1646 • 4	1631.7	1575.5
245	1566.2							
BOTTOM								
301-30	08 N.G.	1429.8	1514.2	1549.0	1566.1	1597.6	1671.3	1689.7
309	1688.1							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-3	17 N.G.	0,021	N.G.	N.G.	N.G.	-0.278	-0.312	N.G.
318-32	0 N.G.	-0:225	-0.152					

NACELLE SIDE 0.085 321-328 0.407 0.238 0.005 -0.110 -0.152 N.G. N.G. 329 -0.267 CANOPY SIDE 330-334 N.G. -0.231 N.G. N.G. -0.134 CANOPY CENTER LINE 335-342 0.527 -0.165 -0.581 P.O. -0.659 -0.485 -0.093 0.086 CANOPY SIDE 343-344 -0.065 0.141

RUN 3 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

i	ALPHA 2•28	BETA -4.02	MO 0•598	M/M* 0•811	LP 2•00	RP 2 • 0	_	
NR	PTC				K	L	WC	M/MO
0.994	_	9 1732				2.74	2.00	0.965
		TOTA	L PRESSL	RE RATIO	DS. PT/P	ΤO		
INLET R								25 11
	B 0.9567		0.9620		1.0000	1.0010	1.0007	
	6 1.0007		1.0007		1.0007	1.0011	1.0008	1.0008
	4 1.0007	-	1.0008	N.G.	1.0008	1.0010	1.0008	1.0008
	0 1.0005	N.G.	1.0008	1.0008	1.0007	1.0008		
	Y LAYER I			–				
131-13		_	0.9879		0.9083	N.G.	0.9997	0.9993
	2 0.9895	0.9614	0.9120	0.8798				
	Y LAYER (	·						
143-14	4 0.8533	0.7880						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WAI	LL							
	5 1717.0	1748.0	1761.0	N.G.	1702.9	N.G.		
RAKE BUL			_					
207-212	2 1603.5	1617.0	1613.6	1615.3	1602.3	N.G.		
TOP								
213-220	2061.4	1908.4	N.G.	1461.2	1475.3	1557.7	1587.4	1615.0
221-224	1641.9	1806.2	1811.0	1796.3				
SIDE								
	2 2128.9			1230.2	1353.9	1476.1	1473.6	1529.5
233-236		N.G.	1798.9	1844.3				
SPLITTER								
	2136.0	N.G.	N.G.	1698.9	1665.3	1735.0	1718.9	1674.9
245	1665.3							
BOTTOM								
301-308		1581.2	1633.7	1657.4	1668•2	1690.7	1751.3	1766.2
309	1768.5							
			22222					
		STATIC	PRESSUR	F COEFF1	CIENTS,	CP		
NACELLE		0 047	A) C	N 6	A) C	0 200	0 220	A1 6
310-317				N.G.	N.G.	-0.300	-0.320	N.G.
318-320		<b>-</b> 0 • 228	-0.153					
NACELLE		0.257	0 201	0 054	. 0 022	0 120	-0.163	A. C
321-328		0.354	0.201	0.054	-0.022	-0.129	-0.102	N.G.
329	-0.272							
CANOPY S		_0 220	N.G.	N C	-0.124			
330-334	ENTER LI	-	N. U.	N•G•	-04124			
			-0-579	-0.701	-0.653	-0.477	=0.021	0.133
CANOPY S		-00104	-01578	-00171	-0 0000	-01411	-0.011	0.133
	-0.048	0.174						
J45~544								

#### INLET PRESSURE SURVEY

1/5 SCALE MODEL

1

RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 54 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

BP LP RP **ALPHA** BETA MO M/M\* 0.598 OPEN 0.700 1.50 1.51 2.29 -4.02 WC M/MO PSC PSB NR PTC K L 0.997 2127.9 1859.6 1839.0 1.96 1.73 0.833 3.61 TOTAL PRESSURE RATIOS. PT/PTO INLET RAKE 101-108 0.9791 1.0007 0.9854 0.9794 0.9649 1.0008 1.0006 N.G. 1.0008 109-116 1.0008 0.9990 1.0007 1.0006 1.0008 1.0007 1.0008 117-124 1.0008 1.0008 1.0008 1.0006 1.0007 1.0008 1.0007 N.G. 1.0007 1.0008 1.0008 125-130 0.9994 1.0008 N.G. BOUNDARY LAYER RAKE 0.9985 0.9812 0.9055 0.9996 0.9986 131-138 N.G. N.G. N.G. 139-142 0.9831 0.8805 0.9525 0.9076 BOUNDARY LAYER DUCT 143-144 0.8605 0.7891 INLET STATIC PRESSURES. PS RAKE WALL 201-206 1850-2 1871.1 1879.3 N.G. 1837.5 N.G. RAKE BULLET 1784.2 207-212 1774.6 1781.3 1785.9 1774.3 N.G. TOP 213-220 1958.1 2027.3 N.G. 1702.9 1703.4 1741.8 1759.6 1778.0 1908.4 221-224 1793.5 1911.2 1901.9 SIDE 225-232 2132.6 1868.6 1621.5 1550.4 1623.8 1686.2 1685.9 1714.4 233-236 1735.0 N.G. 1901.9 1936.1 SPLITTER 237-244 2136.5 N.G. 1840.6 1821.4 1858.4 1848.0 N.G. 1816.1 245 1809.6 BOTTOM 1804.5 1824.5 301-308 1771.5 1793.5 1809.1 1866.2 1880.0 N.G. 309 1881.3 STATIC PRESSURE COEFFICIENTS. CP NACELLE TOP

310-317 N.G. -0.248 N.G. N.G. N.G. -0.341 -0.333 N.G. 318-320 -0.228 -0.153N.G. NACELLE SIDE -0.014 -0.077 -0.164 -0.180 0.234 0.116 321-328 N.G. N.G. -0.277 329 CANOPY SIDE

330-334 N.G. -0.226 N.G. N.G. -0.104
CANOPY CENTER LINE
335-342 0.528 -0.161 -0.570 -0.779 -0.637 -0.458 -0.029 0.214

CANOPY SIDE 343-344 -0.015 0.235

## INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 55 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RP		
	2•29	-4.02	0.599	_	1.00		_	
NR	PTC		_	_	K	L	WC	M/M0
1.000	2133	2 1987	•7 197	8.1	1.62	1.01	1.32	0.636
		7074			07.0			
**** = = =	5	IOTA	L PRESSU	RE RATIO	DS. PT/P	10		
INLET R					- 0000			A) 6
	8 0.9927		0.9948	0.9851	1.0008	1.0008	1.0011	N.G.
	6 1.0008	1.0006	1.0010	1.0011	1.0011	1.0013	1.0011	1.0011
	4 1.0010		1.0011	N.G.	1.0008	1.0011	1.0007	1.0010
	0 1.0008	N.G.	1.0008	1.0007	1.0008	1.0012		
	Y LAYER F	-						
131-13		0.9940	0.9636	N.G.	0.8998	N.G.	0.9991	0.9941
_	2 0.9662		0.8982	0.8796				
	Y LAYER (							
143-14	4 0.8652	0.7888						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA								
	6 1981.8	1995.1	1997.6	N.G.	1976•2	N.G.		
RAKE BU								
	2 1945.1	1947.6	1950.2	1949.6	1942.3	N.G.		
TOP								
	0 1730.2	2121.9	N.G.	1934•4	1916.6	1930.7	1934.1	1940.0
221-22	4 1947.9	2011.7	2015.7	2010.9				
SIDE								
225-23	2 2092.5	2050.1	1910.7	1850.8	1880.7	1891.7	1893.4	1906 • 1
233-23	6 1919.4	N.G.	2009.5	2029.5				
SPLITTE								
237-24	4 2136.5	N.G.	N.G.	1985.2	1973.1	1989.7	1981.8	1965.2
245	1960.6							
BOTTOM								
301-30	8 N.G.	1950.8	1951.9	1954.9	1955.7	1963.4	1989.5	1998 • 4
309	1999.7							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 N.G.	-0.533	N.G.	N.G.	N.G.	-0.416	-0.358	N.G.
318-32	0 N.G.	-0.236	-0.157					
NACELLE	SIDE							
321-32	8 N.G.	0.020	-0.028	-0.127	-0.171	-0.224	-0.210	N.G.
329	-0.291	-						
CANOPY	SIDE							
-	4 N.G.	-0.223	N.G.	N.G.	-0.074			
	CENTER LI			· ·				
	-	-0.158	-0.565	-0.768	-0.618	-0.434	0.033	0.321
CANOPY								
	4 0.037	0.320						
J + J - J +		- 4 - 2 - 0						

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 56 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RP	BP	
	2 • 29	-4.02	0.599	0.312	0.51	0.50	OPEN	
NR						L		M/MO
1.000	2134	•7 2087	.6 208	33.1	0.52	0.38	0.77	0.371
		TOTA	L PRESSU	JRE RATIO	OS. PT/P	10		
INLET R		0.0041	0.0000	0.0040	1 0010	1 0000	1 0000	N G
			0.9989		1.0010 1.0005		1.0008 1.0010	1.0011
				N•G•				1.0007
	0 1.0008			1.0008			1.0007	1.0001
	Y LAYER I		1.0000	1.0008	1.0001	1.0011		
			0.9155	N.G.	0.8843	N.G.	0.9834	0.9501
			0.8746		000043		007054	•••••
	Y LAYER I		010140	000724				
		0.7880						
145 14	4 0 60017	00,7000						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WAI	LL							
	6 2085.7	2090.2	2091.4	N.G.	2083.2	N.G.		
RAKE BUI	LLET							
207-21	2 2073.0	2073.9	2075.0	2075.0	2067.9	N.G.		
TOP								
213-22	0 1414.9	2125.5	N.G.	2090.2	2071.6	2071.6	2069.6	2071.6
221-22	4 2073.0	2094.8	2095.9	2094.2				
SIDE								
225-23	2 1877.9	2135.1	2102.1	2064.8	2060.9	2058.9	2053.8	2060.6
233-236	5 2062.8	N.G.	2093.3	2100.7				
SPLITTER								
	4 2135.4	N.G.	N.G.	2089•4	2084.0	2088.5	2084.9	2079.5
245	2077.2							
BOTTOM								
301-30		2095.6	2082.6	2078.5	2075.7	2075.7	2086.2	2090.3
309	2090.8							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE			<b>N</b> 6	N-C	۸. ۵	0 475	0 001	
310-31				N•G•	N.G.	-0.475	-C•381	N.G.
318-320		-0.241	-0.160					
NACELLE		0.010	0.250	0.300	-0.200	0 205	0 004	A. C
321-328		-0.319	-0.250	-0.290	-0.298	-0.295	-0.234	N.G.
329	-0.304							
330-334		-0.215	N.G.	N.G.	-0.026			
	CENTER L			14.00	01020			
			-0.550	-0.741	-0.582	-0.388	0.139	0.408
CANOPY S				J. 172	0000	0000	34.37	31400
CAHOFI								

READ TUBES HORIZONTALLY AND CONSECUTIVELY.

N.G IMPLIES BAD TUBE, P.O PRESSURE OVERFLOW, DATA INVALID. PAGE

343-344 0.121 -0.167

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 57 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA 2.18	BETA 3.97	M0 0•598	M/M* 0.312	LP 0•51	RP 0•5	-	
NR	PTC	PSC			K	L	WC J. E	M/MO
1.001	2135		•4 208		0.30	0.41	0.77	
16001	2132	2000	• + 200	7 9 7	0.50	0041	0011	003/1
		TOTA	PRESSU	RE RATIO	DS. PT/P	TO		
INLET F	RAKE	,,,,	E THEOSO	ME MAIL		. •		
	8 0.9992	1.0004	1.0007	0.9981	1.0004	1.0007	1.0008	N.G.
	6 1.0008	1.0008	1.0001	1.0010	1.0007	1.0011	1.0010	1.0008
_	4 1.0007	_		N.G.	1.0007	1.0010	1.0005	1.0008
	0 1.0010	N.G.	1.0010	1.0011	1.0008	1.0011		
	RY LAYER I		10010		10000	100011		
131-13	·		0.9172	N.G.	0.8834	N.G.	0.9876	0.9575
	2 0.9213	0.9014	0.8845	0.8805	••••			
	Y LAYER			00000				
	4 0.8679	0.7887						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	\LL							
201-20	6 2086.6	2090.8	2092.5	N.G.	2083.7	N.G.		
RAKE BL	JLLET							
207-21	2 2075.0	2075.8	2076.4	2076.1	2069.3	N.G.		
TOP								
213-22	20 1289.8	2083.2	N.G.	2114.8	2103.2	2101.0	2097.0	2095.0
221-22	4 2094.2	2097.0	2097.0	2095.9				
SIDE								
225-23	2 1135.3	2003.6	2115.1	2135.1	2127.2	2117.6	2109.2	2104.4
233-23	6 2100.4	N.G.	2097.3	2103.2				
SPLITTE	R							
237-24	4 2133.7	N.G.	N.G.	2063.4	2065.1	2080.9	2083.2	2079.5
245	2078.9							
BOTTOM								
301-30	8 N.G.	2116.1	2111.0	2106.1	2104.8	2097.2	2093.1	2092.0
309	2092.0							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE				= _				-
	7 N.G.		N.G.	N.G.	N.G.	-0.521	-0.392	N.G.
318-32		-0.253	-0.176					
NACELLE								
321-32		-1.128	-1.104	P.O.	P.O.	P.O.	-0.481	N.G.
329	-0.352							
CANOPY		• • • •						
330-33		•	N.G.	N.G.	-0.096			
	CENTER LI		0.555	7. 7.	0. 500	0.000	0.300	0
	_	-0.144	-0.555	-0.750	-0.588	-0.393	0.138	0.407
CANOPY		0 223						
343-34	4 0.096	0.327						

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 58 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

. , ,	000.11	JANT EATE		or Ellin Bo	in Enoine.	J OI LINN	• • •	
<b>A</b>	LPHA	BETA	MO	M/M*	LP	RP	ВР	1
					1.00		_	
NR		PSC				L		M/MO
1.000	2134	3 1991	.8 198	2.8	0.97	1.14	1.31	0.630
		TOTA	L PRESSU	JRE RATIO	S. PT/P	ГО		
INLET RA								
101-108	0.9995				1.0007	0.9999	1.0006	
	1.0008			1.0007		1.0000	1.0008	1.0010
	1.0006			N.G.	1.0008	1.0007	1.0004	1.0008
	0.9995		1.0007	1.0006	1.0004	1.0008		
BOUNDARY								
		0.9838		N.G.	0.8972	N.G.	0.9998	0.9966
		0.9397	0.9024	0.8848				
BOUNDARY								
143-144	0.8648	0.7892						
		• • • •						
DAKE WAL	•	INL	ET STATI	C PRESSU	JRES. PS			
RAKE WAL	_	1008 8	2004	N. C	1070 9	N C		
201-206		1998.8	2004.1	N•G•	1979.8	N.G.		
207-212		1953.6	1957.2	1955.0	1946.8	N.G.		
TOP	1950.2	195540	195702	195500	1740.0	N. G.		
213-220	1554.0	2121.9	N.G.	2017.7	2000•4	2000.7	1995.1	1994.8
221-224		2019.1	2019.4	2015.4	20004	20001	177301	1,,,400
SIDE	177460	201761	201764	201264				
225-232	1410-3	2112.8	2130.3	2080.1	2047.0	2028.1	2018.5	1999.3
233-236		N.G.	2017.4	2036.0	204700	202001	202007	2,,,,,
SPLITTER	2,,,,,,,,,		201.04	203000				
237-244	2131.7	N.G.	N.G.	1942.3	1944.5	1978.4	1980.1	1967.1
245	2133.2							
BOTTOM								
301-308		2045.2	2033.0	2028.4	2023.0	2006.4	2003.8	2004.3
309	2001.5							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-317	N.G.	-1.140	N.G.	N.G.	N.G.	-0.463	-0.378	N.G.
318-320	N.G.	-0.247	-0.171					
NACELLE S	SIDE							
321-328	N.G.	-1.281	-0.948	P.O.	P.O.	-0.652	-0.418	N.G.
329	-0.361							
CANOPY 5								
330-334			N.G.	N.G.	-0.148			
CANOPY CE							_ =	
		-0.148	-0.565	-0.772	-0.619	-0.434	0.034	0.319
CANOPY S	IDE							

READ TUBES HORIZONTALLY AND CONSECUTIVELY.

N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID. PAGE

343-344 0.005

0.269

1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

### CTOL FLIGHT REGIME

BASIC CANOPY + 24E OVAL INLET + LONG SPLITTER + RUN 41 59 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA 1.95	BETA 4.01	M0 0.599	M/M*	LP 1•50			
NR			PS		K	L	WC	M/M0
0.999		.5 1867				2.05		
	2172	100.	104	,,,,	2005	2005	20.2	00000
		TOTA	PRESSI	IRE PATT	OS. PT/P	TO		
INLET R	AVE	1017	E TRESSO	WE WALL	234 1 171	10		
	18 U.9902	0.9992	1.0004	0.9745	1.0007	1.0006	1.0008	N.G.
	6 1.0006		1.0007	1.0008	1.0006	1.0007	1.0008	1.0010
	4 1.0005		1.0008	N•G•	1.0006	1.0008	1.0008	1.0008
	0 1.0008		1.0008	1.0008	1.0004	1.0010	1.0000	1.0000
	RY LAYER	· · · -	1.0000	1.0000	180004	1.0010		
	18 N.G.		0.9830	N.G.	0.9041	N.G.	0.9999	0.9995
			0.9103	0.8834	0 6 7 0 4 1	14.00	0.,,,,	067777
	2 0.9859		0.9103	0 6 6 6 5 4				
	LAYER							
143-14	4 0.8596	0.7878						
		• • • •						
4		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA					1015 7			
	6 1854.2	1878.8	1889.5	N.G.	1845.7	N.G.		
RAKE BL								
	2 1786.7	1793.2	1801.7	1795.7	1784.5	N.G.		
TOP								
	0 1836.4		N.G.	1844.6	1837.3	1851.9	1849.7	1855.3
	4 1858.1	1919.7	1919.7	1909.5				
SIDE		_						
	2 173/.0		2048•7	1938.3	1903.6	1882.7	1866.6	1846.0
233-23		N.G.	1916.3	1950.5				
SPLITTE								
237-24		N.G.	N.G.	1793.5	1797.2	1849.7	1847.1	1824.0
245	1851.7							
BOTTOM								
301-30	8 N.G.	1928.6	1924.0	1920.4	1913.8	1889.5	1889.2	1892.0
309	1891.8							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 N.G.	-0.424	N.G.	N.G.	N.G.	-0.391	-0.355	N.G.
318-32	0 N.G.	-0.244	-0.170					
NACELLE	SIDE							
321-32	<b>-</b>	-0.947	-0.748	-0.704	-0.665	-0.587	-0.395	N.G.
329	-0.351							•
CANOPY	*							
330-33		-0.448	N.G.	N.G.	-0.176			
	CENTER L			.,,,,				
		-0.152	-0.575	-0.787	-0.642	-0.462	-0.031	0.211
CANOPY								
_	4 -0.049	0.184						
J-J-J-	~ UBU~7	0 9 1 0 <del>4</del>						

1/5 SCALE MODEL

INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT

### CTOL FLIGHT REGIME

BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER. RUN 3 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE PT 60

ALPHA 1.96	BETA 4.00	M0 0 - 597	M/M* 0.872	LP 2•51	RF 2•5		
	PTC PSC			K	L .	WC WC	M/M0
		0 16		5.61	3.46	2.15	
00991 2.	12000 1052	101	1300	2001	3040	2417	1.037
	TOTA	I DDECCI	IDE DATT	DS. PT/P	TO		
TAULET DAVE	1012	IL PRESSU	NE KAII	731 P17P	10		
INLET RAKE 101-108 0.96	40 0.0040	1.0000	0.0451	1.0007	1.0010	1.0008	N.G.
		1.0000	0.9451	1.0007	1.0010		
109-116 1.00		1.0010	1.0011	1.0011 1.0010	1.0011	1.0008	1.0011
125-130 1.00		1.0008	N•G• 1•0010	1.0008	1.0010	1.0008	1.0008
BOUNDARY LAYS		1.0000	1.0010	1.0008	1.0007		
131-138 No		0.9916	N.G.	0.9090	N.G.	0.9995	0 0000
139-142 0.99		0.9144		0.9090	N.O.	007773	0.9999
BOUNDARY LAYE		089144	0.0001				
143-144 0.84	•						
143-144 000	0.7000						
	T A14	ET STATI	C DOECC	JRES. PS			
DAKE WALL	INL	EI SIAII	C PRESSU	JKESI PS			
RAKE WALL	. 1691 6	1402 6	AL .C	1/10 0	A) C		
201-206 1635	1671.5	1693.5	N.G.	1619.8	N.G.		
RAKE BULLET	1514 0	1528.9	1612 6	1405.0	N. C.		
207-212 1498	3.4 1514.0	1920.9	1512.5	1495.0	N.G.		
TOP	2 1020 0	N C	1510 5	1525 7	1600.2	1507.6	1611 6
213-220 2051			1518.5	1535.7	120007	1597.5	1611.4
221-224 1622	2.1 1754.2	1755 • 4	1734.2				
SIDE	•6 2056•6	1022 6	1428.2	1626•3	1610.0	1400-4	1670.1
225-232 1995		1822.6	1638 • 2	1020.3	1910.0	1600•4	1570 • 1
233-236 1574	.9 N.G.	1749.7	1810.7				
SPLITTER		AL C	1561 7	1540 5	1444 7	1441 0	1501 4
237-244 2134		N.G.	1561.7	1549.5	1644.7	1641.9	1591.6
245 1581	. • /						
BOTTOM	c 1720 1	1720 2	1720 1	1722 0	1442 0	1701 6	1707 4
		173003	173041	1722.9	100340	1/0104	1/0/00
309 1709	<b>7 • 1</b>						
NACELLE TOD	STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE TOP		N 6	N 6		0 000	0 000	
310-317 No	•		N.G.	N.G.	-0.322	-0.330	N.G.
318-320 No	G0.238	-0.167					
NACELLE SIDE	G0 500	-0 539	-0.540	-0.561	-0.529	-0 272	A. C
	G• -0.590	-0.528	-0.500	-0.561	-00728	-0.312	N.G.
329 -0.3	41						
CANOPY SIDE	60.452	N.G.	N - G	-0.203			
	G0.452	14.04	4.0.	-0.203			
CANOPY CENTER		-0 502	0.0	-0 (()	_0 400	-0.004	0 000
335-342 0.5	-V-15/	-0.503	P.U.	-0.001	-0.488	-0.094	0.080
CANOPY SIDE	01 0 000						
343-344 -0.1	0.080						

## INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 61 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA 4.00	M0 0-598	M/M* 0.811	LP 2•00	RP 2•0		
NR	PTC		PS		Z • 00	L 200	WC OPE	M/MO
0.998		1 1743		-	4.38	2.86	2.00	0.966
			• • • • • • • • • • • • • • • • • • • •		4430	2000	2000	00700
		TOTA	L PRESSU	RE RATIO	S. PT/P	ГО		
INLET R	AKE							
	8 U.9791	0.9983	1.0002	0.9573	1.0005	1.0008	1.0008	N.G.
109-11	6 1.0006	0.9995	1.0006	1.0006	1.0008	1.0011	1.0006	1.0008
117-12	4 1.0007	1.0008	1.0004	N.G.	1.0007	1.0006	1.0007	1.0007
125-13	0 1.0008	N.G.	1.0007	1.0006	1.0008	1.0008		
BOUNDAR	Y LAYER	RAKE						
131-13	8 N.G.	0.9995	0.9891	N.G.	0.9075	N.G.	0.9997	0.9998
139-14	2 0.9908	0.9628	0.9135	0.8817				
BOUNDAR	Y LAYER I	DUCT						
143-14	4 0.8526	0.7880						
		INL	ET STATI	C PRESSU	IRES. PS			
RAKE WA								
	6 1728.3	1756.5	1775.4	N.G.	1714.4	N.G.		
RAKE BU	-							
	2 1620.1	1632.0	1636.8	1632.0	1620.1	N.G.		
TOP								
	0 1990.8	1989.2	N.G.	1652.0	1656.5	1696.1	1701.2	1710.2
	4 1720.4	1820.6	1823.1	1804.5				
SIDE								
	2 1920.0	2097.9	1920.0	1763.3	1741.5	1716.4	1690.4	1685.1
233-23		N.G.	1818.1	1868.9				
SPLITTE	• •			1011				
	4 2134.0	N.G.	N.G.	1656.5	1647.5	1730.0	1727.7	1687.9
245	1679.7							
BOTTOM								
301-30		1803.8	1811.4	1808.9	1801.7	1768.2	1778.7	1783.6
309	1784.6							
		STATIC	PRESSUR	E COEFFI	CIENTS	CP		
NACELLE			A					
	7 N.G.			N.G.	N.G.	-0.340	-0.336	N.G.
318-32		-0.237	-0.168					
NACELLE		0.300			-(, =0=	0 000	-0.030	<b>A.</b> 6
321-32		-0.700	-0.586	-0.602	-0.593	0.020	-0.370	N.G.
329	-0.344							
CANOPY		-0 440	AL C	AL C	-0 101			
330-33		-0.449	N.G.	NOGO	-0.191			
	CENTER LI 2		-0.579	-0.704	-0.652	-0.477	-0.070	0.131
		-00154	-0.516	-01174	-0.652	-00411	-0,070	0.131
CANOPY		0 120						
34 3 <del>-</del> 34	4 -0.081	0.120						

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 62 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA 7.98	M0 0.598	M/M* 0.870	LP 2•50	RP 2•5	BP 1 OPE	N
NR	PTC				K	L	WC	M/MO
0.998		1 1659			5.50	3.51	-	
		TOTA	L PRESSU	RE RATIO	S. PT/PI	ro		
INLET R	RAKE							
101-10	B U.9793	0.9996	1.0006	0.9462	1.0000	0.9996	1.0010	N.G.
109-11	6 1.0008	0.9993	1.0008	1.0010	1.0008	1.0011	1.0008	1.0008
117-12	4 1.0000	1.0008	1.0006	N.G.	1.0005	1.0007	1.0004	1.0007
125-13	0 1.0004	N.G.	1.0006	1.0006	1.0007	1.0008		
BOUNDAR	Y LAYER	RAKE						
131-13	8 N.G.	0.9994	0.9933		0.9058	N.G.	0.9963	0.9973
139-14	2 0.9916	0.9636	0.9051	0.8622				
BOUNDAR	Y LAYER I	DUCT						
143-14	4 0.8130	0.7694						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA						= -		
	6 1631.1	1676.9	1699.7	N.G.	1624.9	N.G.		
RAKE BU						14.14		
	2 1507.2	1522.1	1534.6	1521.3	1503.5	N.G.		
TOP	1002 1	1062 7	A) C	1415 2	1/2/	3/// 5	1441	1440
	0 1993.1	1952.7	N.G.	1615.3	1624•1	1664.5	1661.6	1668.1
	4 1671.8	1759.0	1760.2	1739.3				
SIDE	2 1472 0	2122 2	2010.4	1942 1	1770.5	1722 1	1600.7	1462 2
	2 1672.9	2133.2	2010.6	1842.1	1778.5	1733.1	1690.7	1662.2
	6 1650.9	N.G.	1758.5	1818.1				
SPLITTE	4 2130.0	N.G.	N.G.	1526.9	1527•2	1639.0	1643.0	1596.7
245	1851.7	14.00	11.00	132009	152102	1037.0	1043.0	13701
BOTTOM	103101							
301-30	A N.G.	1798.6	1801.5	1796.1	1784.2	1728.0	1715.5	1712.7
309	1714.7	1790.0	100103	177011	170403	1720.0	1/1505	1/130/
307	111401							
		STATIC	PRESSURE	COEFFI	CIENTS.	CP		
NACELLE	TOP	JIAILE	, KESSOK			•		
		-0.251	N.G.	N.G.	N.G.	-0.371	-0.382	N.G.
318-32								
NACELLE								
	B N.G.	-1.299	-1.037	P.O.	P.O.	-0.729	-0.462	N.G.
329					-			
CANOPY								
330-33		-0.598	N.G.	N.G.	-0.279			
	CENTER L							
		-0.169	-0.591	P.O.	-0.668	-0.498	-0.109	0.069
CANOPY								
343-34	4 -0.137	0.034						

#### INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT 1/5 SCALE MODEL CTOL FLIGHT REGIME

BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER. KUN BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE PT 63

	ALPHA	BETA 7.99	Mo 0.599	M/M* 0.807	LP 1•99	RP 2 • 0		N
NR	PTC	PSC			K	L	WC	M/M0
∪•998	2131	_	•4 172		3.95	2.91	1.99	0.960
		TOTA	L PRESSU	RE RATIO	S. PT/P	TO		
INLET F	RAKE							
101-10	0.9853	1.0000	1.0002	0.9614	1.0000	1.0004	1.0006	N.G.
109-11	16 1.0006	1.0000	1.0007	1.0006	1.0005	1.0008	1.0007	1.0006
117-12	24 1.0004	1.0006	1.0007	N.G.	1.0006	1.0007	1.0004	1.0006
125-13	30 1.0006	N.G.	0.9999	1.0006	1.0005	1.0006		
BOUNDAR	Y LAYER F	RAKE	,					
131-13	88 N.G.	0.9995	0.9922	N.G.	0.9053	N.G.	0.9970	0.9978
139-14	2 0.9918	0.9633	0.9069	0.8672				
BOUNDAR	RY LAYER I	DUCT						
143-14	4 0.8216	0.7703						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	\LL							
201-20	6 1733.8	1764.0	1782.9	N.G.	1720.8	N.G.		
RAKE BL	JLLET							
207-21	2 1630.4	1641.7	1646.5	1641.7	1629.3	N.G.		
TOP								
213-22	0 1925.2	2013.0	N.G.	1729.3	1728 • 1	1756.4	1752.7	1755.8
221-22	4 1761.2	1827.0	1828.9	1812.8				
SIDE								
225-23	2 1564.9	2135.6	2064.7	1927.8	1365.9	1822.2	1781.8	1761.5
233-23	6 1749.3	N.G.	1827.0	1875.2				
SPLITTE	R							
237-24	4 2130.5	N.G.	N.G.	1628.7	1632•4	1726 - 4	1730.4	1694.3
245	1686.9							
BOTTOM								
301-30	8 N.G.	1866.4	1866.2	1861.0	1851.6	1802.7	1793.3	1790.4
309	1790.7							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 N.G.	-0.325	N.G.	N.G.	N.G.	-0.394	-0.393	N.G.
318-32	0 N.G.	-0.298	-0.230					
NACELLE	SIDE							
321-32	8 N.G.	-1.437	-1.059	P.0.	P.O.	-0.755	-0.471	N.G.
329	-0.363							
CANOPY	SIDE							
330-33	4 N.G.	-0.602	N.G.	N.G.	-0.273			
CANOPY	CENTER LI	NE						
335-34	2 0.496	-0.170	-0.593	P.0.	-0.667	-0.495	-0.092	0.109
CANOPY	SIDE							
343-34	4 -0.123	0.071						

## INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 3 BASIC CANOPY • 24E OVAL INLET • LONG SPLITTER • BOUNDARY LAYER DUCT OPEN • BOTH ENGINES OPERATIVE

F1 04	BOOM	DANI LAIL	K DOCT O		in choine	o or ENATA	V L	
Λ	LPHA	BETA	МО	M/M*	LP	RP	вР	
		7.99	_		1.50		_	u
NR	PTC	PSC			K	L	WC U. L.	M/M0
1.000	2135		•3 185		1.50	2.06	1.72	
1000	2133	1013	• 5	4.7	1030	2.00		0.020
		TOTA	DDECCI	DE PATIC	S. PT/P	TΛ		
INLET RA	VE	1017	L PRESSO	WE WALL	73 F 17 F			
		1 0000	1 0008	0.0841	1 0001	1.0008	1.0010	N.G.
101-108	-		1.0008 1.0007			1.0008 1.0011	1.0007	1.0008
109-116								1.0008
117-124				N•G•	1.0007	1.0011	1.0006	1.0008
		N.G.	1.0007	1.0010	1.0007	1.0008		
BOUNDARY					0.005.0			0 0000
131-138		0.9994	0.9893		0.9058	N.G.	0.9980	0.9989
139-142	-	0.9625	0.9102	0.8764				
BOUNDARY								
143-144	0.8434	0.7779						
		INL	ET STATI	C PRESSU	IRES PS			
RAKE WAL	L							
201-206	1863.0	1883.9	1895.2	N.G.	1851•1	N.G.		
RAKE BUL	LET							
207-212	1793.2	180(, 1	1805.9	1802.0	1792.1	N.G.		
TOP								
213-220	1758.2	2085.5	N.G.	1897.7	1885.8	1895.7	1888.7	1888.7
221-224	1888.4	1924.5	1924.2	1914.6				
SIDE								
225-232	1353.9	2119.9	2124.7	2043.1	1989.5	1954.2	1924.5	1902.8
233-236	1890.9	N.G.	1923.4	1955.9				
SPLITTER								
237-244	2129.5	N.G.	N.G.	1767.3	1780.0	1847.2	1852.2	1829.1
245	1825.7							
BOTTOM								
301-308	N.G.	1966.1	1960.8	1955.9	1949.5	1915.8	1900.7	1897.6
309	1897.9		20000	2000		272000		207.00
	107147							
		STATIC	PRESSUR	E COEEE1	CIENTS.	СР		
NACELLE	TOP.	SIMITE	PRESSUR	L COLFF I	CIENTS	CP		
310-317	N•G•	-0.522	N.G.	N.G.	N.G.	-0.451	-0-405	N.G.
	N•G•	-0.298	-0.229	1100	11000	-00431	-01407	14.04
318-320		-04298	-0.229					
NACELLE S		1 676	1 2/0	0.0	0.0	0.0	0 400	A
321-328	N•G•	-1.575	-1.240	P.O.	P.O.	P.O.	-0.455	N.G.
329	-0.361							
CANOPY S		0.500	A1 C		0.050			
330-334	N.G.	-0.593	N.G.	N.G.	-0.253			
CANOPY CE			0.504	0 0	0 450	0 4 74	0.053	
•		-0.164	-0.584	P•0•	-0.650	-0.475	-0.051	0.189
CANOPY S								
343-344	-0.086	0.142						

1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

### CTOL FLIGHT REGIME

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 65 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RP		
		7.99			1.00		OPE	
NR	PTC	PSC	_		K	L	WC	M/MO
1.000	2136	• / 1994	• 3 198	14 • B	0.45	1.18	1.31	0.629
		_ TOTA	L PRESSU	RE RATIO	DS. PT/P	ro		
INLET R								
	18 C•9984		1.0006	0.9964	1.0000	1.0007	1.0006	N.G.
	6 1.0006		1.0008	1.0002	1.0006	1.0010	1.0007	1.0008
117-12	4 1.0006	1.0005	1.0006	N.G.	1.0004	1.0006	1.0007	1.0005
125-13	0 1.0006	N.G.	1.0005	1.0006	1.0007	1.0007		
BOUNDAR	Y LAYER F	RAKE						
131-13	B N.G.	0.9981	0.9772	N.G.	0.9009	N.G.	0.9989	0.9991
139-14	2 0.9837	0.9519	0.9074	0.8832				
BOUNDAR	Y LAYER L	DUCT						
143-14	4 0.8540	0.7860						
		INL	ET STATI	C PRESSU	JRF PS			
RAKE WA	LL							
201-20	6 1988.9	2000.2	2006.7	N.G.	1981.6	N.G.		
RAKE BU								
	2 1952.5	1955.6	1958 • 4	1957.0	1949.1	N.G.		
TOP				•				
	0 1468.8	2106.1	N.G.	2046.5	2028.7	2026.7	2018.8	2016.0
	4 2013.7	2021.1	2021.4	2016.8				
SIDE		202101	202104	201000				
	2 1111.1	2043.7	2136.0	2123.6	2091.7	2068.0	2048.8	2032.9
	6 2023.6	N.U.	2022.2	2038.3				
SPLITTE		1,000	202202	203003				
	4 2127.2	N.G.	N.G.	1917.5	1930•2	1973.6	1979.0	1968.6
		N•0•	11.0.	191700	195002	191300	191960	190000
245	2136.0							
BOTTOM	o N. C	2/ 5 7 2	2060 2	2044 6	2041 4	2022 2	2010 4	2004 2
		2051.2	2030-3	204005	2041•4	2023.2	201044	2006.3
309	2005.8							
			00555110		C15436	-0		
	*00	STATIC	PRESSUR	E COEFF1	CIENTS.	CP		
NACELLE		1 4 0 1	At c	۸. ۶	A1 /	0.504	0 4 0 4	N. C
	7 N.G.			N.G.	N.G.	-0.534	-0.434	N.G.
318-32		-0.304	-0.233					
NACELLE	-							
		-1.211	-1.217	P.O.	P.U.	P. 0.	-0.594	N.G.
329								
CANOPY								
330-33		-0.587	N.G.	N.G.	-0.220			
	CENTER LI		_		_			_
		-0.159	-0.574	-0.775	-0.626	-0.446	0.018	0.306
CANOPY	_							
343-34	4 -0.025	0.240						

## INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER. BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	. 0					20	0.5	
A	LPHA	BETA 7.99	MO	M/M*	LP	RP	0 005	Al
NR	1096	1.99	0.099	0.316	0.51	0.5	U UPE	M/MO
1.4400	2136	PSC 9 2088	-5 708	DD 84 = ()	0.25	0.41	WC 78	0.376
1.000	2150	2000	• > 200	,4.0	0023	041	00.0	003.0
		TOTA	L PRESSU	JRE RATIO	DS. PT/P	TO		
INLET RA	KE		_					
101-108	0.9995	1.0004	1.0005	0.9984	0.9996	1.0005	1.0005	N.G.
109-116	1.0007	1.0006	1.0007	1.0010	1.0005	1.0006	1.0005	1.0008
117-124	1.0006	1.0007	1.0005	N.G.	1.0006	1.0006	1.0005	1.0006
	-	N.G.	1.0006	1.0006	1.0005	1.0006		
BOUNDARY								
		0.9796		N.G.	0.8903	N.G.	0.9986	0.9859
	-	0.9224	0.8955	0.8865				
BOUNDARY								
143-144	0.8616	0.7049						
		TAIL	ET CTATI	C DDECCI	JRES. PS			
RAKE WAL	1	INC	EI SIAII	IC PRESSU	JKEST PS			
201-206		2090.5	2092.8	N.G.	2084.0	N.G.		
RAKE BUL		20,000	20,20	1100	20040			
_	2074 • 2	2075.3	2073.0	2075.6	2069•6	N.G.		
TOP								
	1204.5	2045.1	N.G.	2117.1	2110.9	2109.7	2105.8	2102.7
221-224	2102.1	2096.8	2097.9	2095.6				
SIDE								
				2131.5	2136.3	2129.8	2120.8	2117.4
233-236		N.G.	2099.3	2104.9				
SPLITTER					2251 7			
		N.G.	N.G.	2048 • 2	2054.7	2078.1	2081.2	2079.0
245								
BOTTOM 301-308		2106.8	2100.7	2109.4	2107.6	2102.2	2005.6	2092.2
301-300	2092.0	2100 6	210767	210764	210700	210202	2095.0	209263
509	209200							
		STATIC	PRESSUR	COFFEI	CIENTS.	CP		
NACELLE	TOP	JIN. IC	· NEGOGI					
		-1.458	N.G.	N.G.	N.G.	-0.629	-0.457	N.G.
318-320	N.G.	-0.311	-0.230					
NACELLE	SIDE							
321-328	N.G.	-0.998	-1.016	P.O.	P.U.	P.O.	P.0.	N.G.
329	-0.382							
CANOPY S	-							
			N.G.	N.G.	-0.158			
CANOPY C			0.5	0 7 7	0.00	0 000	0.104	
		-0.150	-0.556	-0.747	-0.587	-0.398	0.124	0.419
CANOPY S		0 311						
343-344	0.075	0.311						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.

N.G IMPLIES BAD TUBE, P.O PRESSURE OVERFLOW, DATA INVALID. PAGE

1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

### CTOL FLIGHT REGIME

RUN BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER. 67 PT BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

,	1.95	BETA -7.98	M0 0 • 598	M/M* 0•311	LP 0•51	RP 0 • 5		
NR	PTC		PS		K	L	WC	M/MO
1.000	2135			4.5	0.77	0.33	0.77	0.370
								•
		TOTA	L PRESSU	RE RATIO	OS. PT/P	TO		
INLET RA	4KE							
101-108	0.9966	0.9969	0.9933	0.9944	1.0008	1.0007	1.0010	N.G.
109-116	1.0005	1.0005	1.0007	1.0008	1.0007	1.0001	1.0007	1.0008
117-124	1.0007	1.0008	1.0001	N.G.	1.0007	1.0008	1.0007	1.0008
125-130	1.0007	N.G.	1.0007	1.0010	1.0008	1.0007		
BOUNDARY	LAYER I	RAKE						
131-138	N.G.	0.9733	0.9382	N.G.	0.8933	N.G.	0.9930	0.9696
139-142	0.9317	0.9021	0.8787	0.8757				
BOUNDARY	LAYER !	DUCT						
143-144	0.8632	0.7858						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WAL	L							
201-206	2087.7	2091.1	2092.0	N.G.	2084.9	N.G.		
RAKE BUL	LET							
207-212	2074.2	2075.0	2076.7	2075.9	2069.4	N.G.		
TOP								
213-220	1455.5	2130.6	N.G.	2071.6	2052 • 1	2054.7	2055.5	2058.9
221-224	2061.7	2096.8	2097.0	2096.2				
SIDE								
225-232	2102.1	2080.4	1998.8	1979.3	2000.8	2020.8	2029.0	2035.8
233-236	2043.7	N.G.	2092.8	2099.3				
SPLITTER	<b>?</b>							
237-244	2133.2	N.G.	N.G.	2103.0	2094.5	2094.5	2088.6	2080.9
245	2077.6							
BOTTOM								
301-308	N.G.	2056.7	2050.3	2050.6	2051.3	2063.4	2083.8	2090.7
309	2091.7							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-317	N.G.	-1.528	N.G.	N.G.	N.G.	-0.513	-0.416	N.G.
318-320	N.G.	-0.282	-0.204					
NACELLE	SIDE							
321-328	N.G.	0.197	0.106	0.014	-0.029	-0.095	-0.132	N.G.
329								
CANOPY S	-							
330-334		-0.140	N.G.	N.G.	-0.026			
CANOPY C								
		-0.164	-0.549	-0.732	-0.578	-0.388	0.125	0.419
CANOPY S								
	-	0.431						
_							_	

READ TUBES HORIZONTALLY AND CONSECUTIVELY. N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID. PAGE

0

# 1/5 SCALE MODEL INLET PRESSURE SURVEY CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 68 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA -7.98	-	M/M*			_	N
NR		PSC			K	L	WC	M/MO
0.998		•9 1990				1.05		
						•		
		TOTA	L PRESSU	RE RATIO	OS. PT/P	To		
INLET R	AKE							
101-10	8 0.9887	0.9883	0.9723	0.9855	1.0008	1.0007	1.0005	N.G.
109-11	6 0.9996	0.9998	1.0007	1.0008	1.0007	1.0007	1.0000	1.0008
117-12	4 1.0006	1.0007	1.0006	N.G.	1.0007	1.0006	1.0006	1.0007
125-13	0 1.0006	N.G.	1.0006	1.0006	1.0006	1.0008		
BOUNDAR	Y LAYER	RAKE						
131-13	8 N.G.	0.9950	0.9760	N.G.	0.9050	N.G.	0.9975	0.9947
	2 0.9734		0.8965	0.8739				
	Y LAYER						•	
143-14	4 0.8536	0.7848						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA								
	6 1986.2	1997.5	1999.8	N.G.	1977•4	N.G.		
RAKE BU						G		
	2 1944.7	1948.4	1952.3	1950.6	1942.4	N.G.		
TOP								
	0 1790.3		N.G.	1878.6	1869•9	1890•2	1900•6	1915.6
	4 1928.0	2013.3	2015.0	2011.6				
SIDE				= .				
	2 2131.0		1666.9	1670.3	1779.0	1819.3	1844.2	1860.3
	6 1880.9	N.G.	2004.8	2020.1				
SPLITTE			h. c					
	4 2133.9	N.G.	N.G.	2009.9	1991.0	1998•1	1985•4	1965.6
	1960.2							
BOTTOM	0 11 6	1001 H	1004 0	1006 6	1011 4	1040 0	1002 0	1004
		1882.8	1094.0	1900.5	1911•4	1940.6	1405.0	1996.1
309	1998.1							
			0054540		CIENTO	60		
NACCLIE	700	STATIC	PRESSUR	E COEFFI	CIENTS	CP		
NACELLE 310-31		=0 4.53	N.G.	N.G.	N.G.	-0.436	-0.387	A. C
		-0.462 -0.278		14.6.	11.00	-0.425	-0.367	N.G.
	0 N.G.	-0.276	-0.204					
NACELLE		0.461	0.313	0.172	0.099	-0.017	-0.092	N C
321 <b>-3</b> 2 329	8 N.G.	0.401	0 - 313	0.172	0.079	-0.017	-04072	N.G.
CANOPY								
330-33	_	-0.150	N.G.	N.G.	-0.079		٠,	
	CENTER L		.,,,,,	,,,,,				
	2 0.498		-0.569	-0.765	-0.622	-0.440	0.015	0.306
CANOPY	-				71022	• • • • • • • • • • • • • • • • • • •	01417	44300
_	4 0.032	0.330						
J J -								

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 69 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	PHA •95	BETA -7.98	M0 0•599	M/M* 0•690	LP 1•50	RP 1•5		
NR 1	PTC	PSC			K	L	WC	M/M0
U • 995		5 1862	-		5.23	1.78		0.821
				_ • •	7023			
		TOTA	L PRESSU	RE RATIO	OS. PT/P	ТО		
INLET RAK	E							
101-108	0.9734	0.4762	0.9487	0.9709	1.0005	1.0005	1.0002	N.G.
109-116	0.9847	0.9910	1.0005	1.0007	1.0004	1.0006	1.0001	1.0002
117-124	1.0005	1.0005	1.0004	N.G.	1.0005	1.0005	1.0004	1.0006
125-130	1.0006	N.G.	1.0006	1.0005	1.0004	1.0007		
BOUNDARY	LAYER F	RAKE						
131-138	N.G.	0.9970	0.9871	N.G.	0.9090	N.G.	0.9975	0.9969
139-142	0.9865	0.9543	0.9054	0.8746				
BOUNDARY	LAYER D	DUCT						
143-144	0.8411	0.7763						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WALL								
201-206	1853.5	1876.9	1879.5	N.G.	1841.6	N.G.		
RAKE BULL	ET							
207-212	1779.0	1/85.2	1794.5	1788.6	1774.7	N.G.		
TOP								
213-220	1986.5	1974.9	N.G.	1620.8	1635.0	1691.7	1719.7	1747 • 1
221-224	1765.4	1909.4	1910.2	1903.5				
SIDE								
225-232	2071.8	1582.4	1286.0	1305.5	1527.9	1595.7	1640.9	1663.2
233-236	1697.4	N.G.	1891.9	1913.1				
SPLITTER								
237-244	2135.6	N.G.	N.G.	1877.2	1850.1	1870.4	1853.5	1818.8
245	1812.3							
BOTTOM								
301-308	N.G.	1644.1	1695.0	1726.7	1743.6	1796.3	1857.2	1876 • 4
309	1877.4							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE TO	OP							
310-317	N.G.	-0.202	N.G.	N.G.	N.G.	-0.372	-0.365	N.G.
318-320	N.G.	-0.274	-0.202					
NACELLE S	I DE							
321-328	N.G.	0.604	0.424	0.264	0.177	0.037	-0.065	N.G.
329	-0.236							
CANOPY SI	DE							
330-334	N.G.	-0.155	N.G.	N.G.	-0.113			
CANOPY CE								
335-342	0.496	-0.182	-0.5/9	-0.783	-0.646	-0.470	-0.050	0.195
CANOPY SI	_							
343-344	-0.021	0.240						

## INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 70 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

P1 70	BOUNDARY LAYE	R DUCT O	PEN. BOT	H ENGINES	OPERALI	VE	
ALPH	IA BETA	МО	M/M*	LP	RP	вР	
	6 -7.98	0.600	0.787	2.00	2.00	OPEN	
NR	PTC PSC	PS	В	K	L	WC	M/MO
U.986	2104.9 1739	8 170	9.9	8.71	2 • 43	1.95	0.936
	TOTA	L PRESSU	RE RATIO	S. PT/P1	0		
INLET RAKE							
101-108 0.		0.9147			_	1.0004	
		0.9996					0.9984
	0005 1.0005		N.G.	0.9989		1.0004	0.9998
125-130 1.		1.0004	1.0005	1.0002	1.0004		
BOUNDARY LA		0.000				0.035	
	N•G• 0•9971			0.9097	N.G.	0.9975	0.9974
	9908 0.9618	0.9094	0.8738				
BOUNDARY LA	•						
143-144 0.	8235 0.7707						
	TAN	ET STATI	C DD5.CCI	IDEC. DE			
RAKE WALL	INL	EI SIMII	C PRESSU	KESI PS			
201-206 17	29.0 1756.7	1762.3	N.G.	1711.2	N.G.		
RAKE BULLET		110203		1/1102			
207-212 16		1639.5	1627.3	1615.2	N.G.		
TOP	102000	103763	102.03	101342	1100		
213-220 20	61.6 1852.7	N.G.	1375.5	1400.6	1510.7	1546.9	1587.8
221-224 16		1803.0	1796.5				
SIDE							
225-232 20	21.2 1435.1	1053.3	1087.8	1223.0	1361.1	1445.2	1487.6
233-236 15		1776.1	1812.8				
SPLITTER							
237-244 21	37.3 N.G.	N.G.	1742.5	1706.1	1745.1	1723.9	1674.5
245 166	69.1						
BOTTOM							
3-1-308	N.G. 1385.5	1500.9	1556.6	1589•4	1663.6	1740.8	1758.7
309 17	59.7						
		PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE TOP							
		N.G.	N.G.	N.G.	-0.331	-0.349	N.G.
		-0.197					
NACELLE SIDE	· <del>-</del>						
		0.476	0.313	0.220	0.066	-0.048	N.G.
	• 227						
CANOPY SIDE		AL .C	N 6	0 100			
		N.G.	NoGo	-0.129			
CANOPY CENT		-0.582	P.O.	-0-455	-0.484	-0.097	0.120
	• <del>-</del> 7   -0 • 102	-0.502	F • U •	-0.6077	-04-04	-0.007	0.120
CANGPY SIDE	040 0 100			5			

READ TUBES HORIZONTALLY AND CONSECUTIVELY.

N.G IMPLIES BAD TUBE, P.O PRESSURE OVERFLOW, DATA INVALID. PAGE

343-344 -0.049

0.190

### 1/5 SCALE MODEL

### RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN 3 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA 1.96	BETA =7.98	M0		LP 2•51		BP	
NR	PTC				K	L	WC WC	M/MO
0.975			_		12.48		2.07	
06713	2002	• 5 1045	• 0 100		12040	2.07	2.01	0.770
		TOTA	I DDESSI	DE DATI	OS. PT/P	TO		
INLET R	AVE	1017	L FRESSO	NE NAIL	551 1171	10		
	8 0.9292	0.8789	0.8803	0.9415	1.0004	1.0006	0.9987	N.G.
109-11		0.9621	1.0005	1.0006	1.0004	0.9153	0.9451	0.9951
117-12			1.0002	N•G•	0.9790	1.0004	1.0004	1.0004
	0 1.0000		0.9970	1.0006	1.0006	1.0004	10000	100004
	Y LAYER		0.000	140000	1,0000	10000		
131-13			0.9912	N.G.	0.9097	N.G.	0.9974	0.9973
	2 0.9923		0.9113	0.8732				
	Y LAYER		00,113	000.52				
	4 0.8129							
145 14	4 000127	0.7000						
		f Ni	ET STATI	C PRFCCI	JRES. PS			
RAKE WA	1-1	1112	LI SIAII	C PRESS.	OKEST PS			
	6 1626.8	1663.8	1672.2	N.G.	1612.4	N.G.		
RAKE BL		10050	10.202	,,,,,,	10120			
_	2 1485.3	1511.9	1519.5	1501.7	1488.4	N.G.		
TOP			202000		2.000			
	0 2083.0	1785.5	N.G.	1216.5	1219.3	1380.3	1420.4	1465.8
	4 1498.9	1707.0	1705.8	1709.8				
SIDE			•					
225-23	2 1999.8	1383.7	1005.9	1049.9	1190.0	1235.2	1282.0	1315.9
233-23		N.G.	1669.1	1718.0				
SPLITTE		.,,,,,						
	4 2137.3	N.G.	N.G.	1626.8	1578.5	1635.0	1609.0	1548.0
245	1553.4							
BOTTOM	20000							
301-30	8 N.G.	1216.7	1377.6	1448.7	1487.1	1554.3	1636.2	1654.4
309	1660•2							
307	100042							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP	• • • • • • • • • • • • • • • • • • • •						
_	7 N.G.	0.019	N.G.	N.G.	N.G.	-0.314	-0.342	N.G.
	U N.G.		-0.198					
NACELLE								
321-32	-	0.697	0.503	0.333	0.238	0.080	-0.040	N.G.
329				- 3.2.2				,
CANOPY								
33(-33		-0.156	N.G.	N.G.	-0.137			
	CENTER LI				·			
	2 0.496		-0.586	P.O.	-0.661	-0.491	-0.106	0.077
CANOPY	-							
	4 -0.064	0.163						
J . J J -								

#### INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT 1/5 SCALE MODEL CTOL FLIGHT REGIME

BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER. RUN 3 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE 72 PT

	ALPHA	BETA	MO	M/M*	LP	RP		
	5 • 39	-0.04	0.597	0.852	2.51	2.50	OPE	N
NR	PTC				K	L	WC	M/MO
0.992	2117	1 1670	•4 163	81.8	8 • 28	3.09	2.10	1.015
		TOTA	L PRESSU	RE RATIO	OS. PT/P	TO		
INLET R	RAKE							
		0.9854	0.9762	0.9188	1.0004	1.0006	1.0005	N.G.
		0.9285						0.9747
		1.0006					1.0005	1.0007
		N.G.				1.0008		
	Y LAYER			•••				
_		0.9431	0.9054	N.G.	0.8567	N.G.	0.9750	0.9543
		0.9010		0.8426				
	Y LAYER	-		••••				
	4 0.8201							
1.5 1.	4 040201							
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	1.1							
	6 1651.9	1688.6	1703.3	N.G.	1637.8	N.G.		
RAKE BU					203.00			
	2 1523.1	1536 • 1	1545.7	1533.3	1517.5	N.G.		
TOP	2 172711	133001	134301	1000	131103	1100		
	0 1926.9	2009.9	N.G.	1554.2	1527•1	1569.5	1575.9	1594.0
	4 1613.8	1760.6		1746.5			201001	200400
SIDE	4 1015.0	1,0000	110304	114003				
	2 2131.9	1743.4	1409-1	1290-8	1393.3	1491-2	1486.2	1502.8
	6 1527.9	N.G.			137303	147102	140042	130240
SPLITTE		1,000	112401	100103				
	4 2137.0	N.G.	N.G.	1599.7	1580.7	1663.5	1657.5	1607.0
245	1598.3	1400	11.00	137701	130007	100343	103763	1007.0
BOTTOM								
301-30		1626.7	1648.2	1652.2	1656.9	1664.6	1705.5	1714.7
309	1711.4	102001	1040.2	1072 5	10000	1004.0	110363	111401
309	1/1104							
		CTATIC	DDECCHID	E COEEE!	CIENTS.	CP		
NACELLE	TOD	SIMIT	FRESSUR	E COEFFI	CIENIS	CP		
	7 NoGo	-0.448	N.G.	N.G.	N.G.	-0.435	-0.254	N.G.
	O N.G.	-0.201		N.5.	N.O.	-01433	-00334	11.00
		-0.201	-00104					
NACELLE		0 210	0.304	0.025	-0-040	-0.127	-0.180	N G
321-32		0.310	0.104	0.025	-0.040	-00121	-0.100	N.G.
329 CANOBY	-0.324							
CANOPY	_	-0.447	N.G.	N.G.	-0.129			
330-33			14.00	14.00	-01127			
	CENTER LI	· -	-0 794	D - O	-0.704	-0.494	-0.055	0.104
	2 0.428	-0.352	-0.184	F.U.	-0.700	-0.494	-0.055	0.104
CANOPY		0 142						
545-34	4 -0.052	0.143						

READ TUBES HORIZONTALLY AND CONSECUTIVELY. N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID. PAGE

## INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 73 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

F1 /3	BOUNT	JAKT LATE	א טטכו כ	PENI BU	IN ENGINE	5 UPERAT	145	
	ALPHA	BETA	MO	M/M*	LP	RP	ВР	•
	8.59	-0.11	0.599		2.00		_	
NR	PTC	PSC	PS	5 <b>8</b>	K	L	WC	M/M0
0.993	2119	9 1755	.3 172	28.1	6.65	2.57	1.95	0.941
		ATOTA	L PRESSU	JRE RATIO	DS. PT/P	TO		
INLET F						_		T. =
	)8 V•9885	_	0.9797	0.9346	1.0002	1.0005	1.0005	N.G.
	6 1.0001		1.0001	1.0004	1.0004		1.0001	0.9787
_	4 1.0006		1.0002	N.G.	1.0005	0.9996	1.0004	1.0005
	0 1.0002	N.G.	1.0001	1.0005	1.0001	1.0004		
	LAYER F		0.0004	A1 C	0.0544		0.0470	0.0001
131-13			0.8986 0.8656	N•G•	0.8546	N.G.	0.9679	0.9381
	2 0.8984 RY LAYER [	0.8957	0 00000	0.8430				
	4 0.8252	0.7748						
143-14	4 0.6232	06/146						
		TALL	ET STATI	C PRESSI	JRES. PS			
RAKE WA	Či i	1176	CI SIAII	C PRESSO	TREST FS			
	6 1739.0	1770.6	1783.0	N.G.	1728.5	N.G.		
RAKE BL		211000	1.0300		1.2013			
	2 1643.0	1648.9	1656.8	1648.9	1637.1	N.G.		
TOP								
	0 1842.3	2061.4	N.G.	1687.0	1659.4	1685.1	1686.2	1698.3
	4 1714.1	1827.4	1831.0	1817.5				
SIDE								
225-23	2 2132.9	1842.3	1570.4	1478.9	1556.0	1618.4	1613.6	1623.8
233-23	6 1642.4	N.G.	1821.4	1866.0				
SPLITTE								
237-24	4 2135.1	N.G.	N.G.	1691.6	1680.3	1747.2	1741.8	1702.0
245	1693.5							
BOTTOM		_					=	
301-30		1743.4	1750.8	1748.5	1749.3	1751.8	1781.5	1788.9
309	1786.4							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE		-0 550	A) C	N. C	N. C	-0.440	0 263	A) C
310-31		-0.558	N.G.	N.G.	N.G.	-0.460	-0.361	N.G.
318-32		-0.193	-0.096					
NACELLE 321-32		0-220	0.047	-0.020	-0.077	-0.160	-0.101	N.G.
321-32		00229	0.047	-0,020	-0.011	-01190	~~171	14 • 0 •
CANOPY	•							
330-33		-0.446	N.G.	N.G.	-0 • 115			
	CENTER LI	-		.,				
	2 0.430		-0.780	P.O.	-0.697	-0.477	-0.031	0.146
CANOPY		•	_		•	• • • •		
242-24		0 172						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE: P.O PRESSURE OVERFLOW: DATA INVALID. PAGE

343-344 -0.027 0.172

## INLET PRESSURE SURVEY 1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN	3	BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT	74	BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	50011				Zilosiiis			
	LPHA	BETA	МО	M/M*	LP	RP	ВР	
î	0.00	-0.11	0.598	0.852	2.50	2.50	OPEN	
NR		PSC						
0.991		3 1667						1.015
		TOTA	L PRESSUR	RE RATIO	)S. PT/P1	0		
INLET RA								
			0.9763			-	1.0004	
		0.9280						0.9743
	-		1.0002				1.0004	1.0004
	-	N.G.	1.0002	1.0006	1.0004	1.0000		
BOUNDARY	_							
		0.9411	0.9043		0.8553	N.G.	0.9742	0.9410
		0.8955	0.8650	0.8419				
BOUNDARY								
143-144	0.8196	0.7728						
		7.000	CTATI		1056 06			
DAKE MAL		INL	EI SIAIIC	. PRESSU	JRES. PS			
201-206		1685.3	1701.2	N.G.	1635•1	N.G.		
RAKE BUL		100743	1/0102	14.0.	103301	14.0.		
	1643.3	1532.6	1540.2	1529.5	1514.8	N.G.		
TOP	1045.5	1552.0	1340.2	132763	1714.0	14.0.		
	1923.4	2009.8	N.G.	1554.3	1526.9	1569.6	1574.9	1592.2
	1713.6			1744.6	132007	130760	101467	177242
SIDE	1,17,0	113760	1.0100	114460				
225-232	2130.3	1747.2	1414.0	1295.1	1394.5	1617.3	1487.1	1502.4
233-236		N.G.	1752.5	1805.1				
SPLITTER								
237-244	2135.4	N.G.	N.G.	1595.8	1576.9	1660.5	1654.3	1604.3
245	1595.6							
BOTTOM								
301-308	N.G.	1741.9	1750.8	1660.5	1656.4	1662.0	1703.5	1714.2
30 <b>9</b>	1709.4							
		STATIC	PRESSURE	COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-317			N.G.	N.G.	N.G.	-0.436	-0.355	N.G.
318-320		-0.196	-0.100					
NACELLE								
321-328		0.299	0.049	0.020	-0.045	-0.130	-0.194	N.G.
329	-0.324							
CANOPY S	-	0 11 0	N - C					
330-334		-0.450	N.G.	N.G.	-0.128			
CANOPY C				0 0				
		-0.357	-0.787	P.O.	-0.708	-0.480	-0.056	0.106
CANOPY S	IDE	0 142						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.

N.G IMPLIES BAD TUBE, P.O PRESSURE OVERFLOW, DATA INVALID. PAGE

343-344 -0.030 0.142

1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, PT 75 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	M0 0.598		LP 1•50			
NR	PTC			6B		L		M/M0
0.996	_	-		•	4.67		1.68	
		TOTA	L PRESSU	JRE RATIO	OS. PT/P	ΤO		
INLET R	AKE							
	8 0.9927		0.9859		1.0007	1.0007	1.0004	N.G.
109-11	6 1.0000	0.9571	1.0007	1.0008	1.0006	1.0008	1.0007	0.9820
117-12	4 1.0006	1.0008	1.0006	N.G.	1.0004	0.9989	1.0000	1.0007
125-13	0 1.0006	N.G.	1.0005	1.0007	1.0007	1.0007		
BOUNDAR	Y LAYER	RAKE						
131-13	8 N.G.	0.9165	0.8857	N.G.	0.8523	N.G.	0.9492	0.9320
139-14	2 0.8852	0.8956	0.8646	0.8441				
BOUNDAR	Y LAYER	DUCT						
143-14	4 0.8288	0.7763						
		INL	ET STATI	C PRESSI	JRES. PS			
RAKE WA								
201-20	6 1860.7	1882.7	1890.6	N.G.	1851.4	N.G.		
RAKE BU								
	2 1643.6	1797.2	1802.5	1798.9	1789.3	N.G.		
TOP								
	0 1692.7		N.G.	1852.2	1819.7	1831.0	1827.9	1833.6
	4 1715.3	1918.3	1921.1	1913.5				
SIDE								
	2 2121.3			1708.5	1752.5	1620.1	1771.5	1781.9
233-23		N.G.	1914.6	1947.4				
SPLITTE								
237-24	4 2135.1	N.G.	N.G.	1823.1	1814.9	1861.0	1857.9	1830.5
245	1824.3							
BOTTOM								
		1742.4	1752.1	1876.4	1873•1	1867.7	1885.1	1891.0
309	1889.7							
						_		
		STATIC	PRESSUR	E COEFFI	CIENTS.	ÇP		
NACELLE			• • •					
	7 N.G.			N•G•	N.G.	-0.505	-0.377	N.G.
	0 N.G.	-0.196	-0.098					
NACELLE								
321-32		0.101	0.051	-0.094	-0.131	-0.163	-0.192	N.G.
329	-0.334							
CANOPY			•					
	4 N.G.		N.G.	N•G•	-0.095			
	CENTER L			_				
		-0.355	-0.777	P.0.	-0.685	-0.478	0.008	0.199
CANOPY								
343-34	4 -0.028	0.210						

RUN 3 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA	BETA -0.11	M0 0 • 599	M/M* 0•516				
NR	_	_	PS		K	L	WC	M/MO
0.998		2 1993			2.70	1.02		
		• • • • • • • • • • • • • • • • • • • •		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				00011
		TOTA	I PRESSI	JRE RATIO	OS. PT/P	TO		
INLET F	DAKE	1017	L INCOOL	ME MAIL				
	08 0.9980	0.9982	0.9975	0.9740	1.0004	1.0008	1.0004	N.G.
	16 1.0004		1.0005	1.0007	1.0008	1.0002	1.0006	0.9865
	24 1.0008		1.0007	N.G.	1.0007	0.9968	1.0007	1.0010
	0 1.0007		1.0007		1.0007	1.0007	1.000,	1.0010
			1.0000	1.0008	1.0007	1.0007		
	RY LAYER I		0.0(00	AL .C	0.0460	AL C	0 0007	0 8000
	38 N.G.			N.G.	0.8460	N.G.	0.9027	0.8990
	2 0.8601		0.8641	0.8427				
	RY LAYER I							
143-14	4 0.8255	0.7740						
					_			
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA								
201-20	6 1988.3	2000.4	2004.1	N.G.	1982.4	N.G.		
RAKE BL	JLLET							
207-21	2 1644.7	1953.9	1957.2	1956.1	1947.4	N.G.		
TOP								
213-22	20 1487.1	2134.3	N.G.	2007.8	1977.3	1978.1	1973.3	1972.8
221-22	4 1715.3	2017.7	2019.1	2015.1				
SIDE								
	2 2038.6	2095.0	1988.9	1931.6	1943.1	1620.7	1945.4	1946.8
	6 1951.3	N.G.	2015.1	2033.8	17 1301			.,
SPLITTE		11000						
	4 2135.4	N.G.	N.G.	1966.3	1961.8	1985.8	1984.6	1970.2
245	1966.0	1400		170003	170100	1703.0	170440	17/002
	190000							
BOTTOM	10 N.C.	17/5 2	1752.1	2016.6	2009 - 1	1002 6	2000.2	2002 0
		114502	1/2201	2015.6	2008 • 1	1773.0	2000.2	2003.8
309	2002.3							
			00566410		4.50.86	45		
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE			A) 6		۸. ح	0.500		
310-31				N.G.	N.G.	-0.538	-0.391	N.G.
318-32		-0.191	-0.096					
NACELLE								
321-32	8 N.G.	-0.111	0.051	-0.200	-0.220	-0.221	-0.189	N.G.
329	-0.342							
CANOPY								
330-33	4 NoGo	-0.438	N.G.	N.G.	-0.053			
CANOPY	CENTER LI	INE						
335-34	2 0.432	-0.345	-0.764	P.O.	-0.655	-0.474	0.078	0.249
CANOPY	SIDE							
343-34	4 -0.024	0.239						

RUN 3 BASIC CANOPY: 24E OVAL INLET: LONG SPLITTER:
PT 77 BOUNDARY LAYER DUCT OPEN: BOTH ENGINES OPERATIVE

	A L DLIA	DETA	Mo	44 /44 %	1.0	RP	ВР	
	ALPHA		_		LP			
ND	10.00	_			0.51		WC OPE	
NR () = 0 ( 0	PTC		•7 192		K	L 0 - 4 2	0.71	M/M0 0∙342
0.940	2006	2 1903	• / 194	25.0	2.60	0.42	0.71	0 • 3 4 2
		TOTA	I PRESSI	IRE RATIO	OS. PT/P	TO		
INLET F	PAKE	1017	L TRESS	ME MAIL				
	8 0.9411	0-9314	0.9295	0.9373	0.9441	0.9479	0.9450	N.G.
	6 0.9275		0.9459		0.9463		0.9274	0.9335
	4 0.9462				0.9283		0.9449	0.9509
	0.9456	N•G•	0.9320					
	RY LAYER H		00,320	00,34,		007173		
	88 N.G.		0.7692	N.G.	0.7798	N.G.	0.7614	0.8512
	2 0.7650		0.8619					0000
	Y LAYER	-	0.0017	001131				
	4 0.7751	-						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	\LL							
201-20	6 1959.2	1963.7	1967.7	N.G.	1964.3	N.G.		
RAKE BL	JLLET							
207-21	2 1645.3	1944.5	1948.2	1942.0	1935.5	N.G.		
TOP								
213-22	0 1733.1	2054.1	N.G.	1757.3	1759.9	1796.3	1816.9	1840.6
	4 1715.0	1946.8	1957.0	1963.5				
SIDE								
225-23	2 1998.2	1887.5	1745.2	1720.1	1795.2	1620.4	1857.0	1870.6
233-23	6 1888.1	N.G.	1949.6	1960.6				
SPLITTE	:R							
237-24	4 1931.0	N.G.	N.G.	1929.6	1937.5	1953.0	1960.9	1955.3
245	2132.9							
BOTTOM								
301-30	8 N.G.	1742.6	1750.0	1812.5	1831.9	1893.0	1931.9	1946.5
309	1957.5							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE								
310-31				N.G.	N.G.	-0.576	-0.406	N.G.
318-32		-0.193	-0.099					
NACELLE	_							
	B N.G.	-0.110	0.049	-0.213	-0.228	-0.236	-0.191	N.G.
329	-0.260							
CANOPY		-						
330-33		-0.415	N.G.	N.G.	0.036			
	CENTER LI							
	2 0.437	-0.328	-0.708	-0.784	-0.445	-0.477	0.040	-0.022
CANOPY	* -							
343-34	4 -0.026	-0.109						

1/5 SCALE MODEL

CANOPY SIDE

D

343-344 0.011 -0.126

### CTOL FLIGHT REGIME

RYAN VZ-11 AIRCRAFT

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 78 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

PI	78	BOUNI	DARY LAYE	R DUCI	OPEN. BO	IH ENGINE	S OPERALI	VE	
	Α.	LPHA	BETA	МО	M/M*	LP	RP	ВР	
			-0.12					CLOS	
	NR -		PSC		SB	K	L	WC	
			4 1872		·				-
			TOTA	L PRESS	URE RATIO	DS. PT/P	TO		
_	ET RA								
		0.9065		0.8853			0.9186		N.G.
		0.8818		0.9121		0.9131	0.8889	0.8813	
			0.9239		N.G.	0.8819	-	0.9094	0.9223
	-	0.9120		0.8885	0.8931	0.9096	0.9190		
		LAYER							
			0.6928			0.7038	N.G.	0.6808	0.6855
_	-	=	0.6950	0.6998	0.7016				
		LAYER (	-						
143	3-144	0.7017	0.7004						
			7 414	CT STAT	16 DDESSI	JRES. PS			
DAVE	WAL	ı	INL	EI SIAI	IC PRESSU	DREST PS			
		_	1870.6	1877.1	N.G.	1875.9	N.G.		
	BUL		1070.0	10//•1	Nege	107349	14.00		
		1845.7	1851.4	1855.9	1849.1	1840.1	N.G.		
TOP	-212	104767	103104	10000	104761	104011	14.00		
	3-220	1800.0	1979.0	N.G.	1530•3	1535.7	1620.7	1654.0	1682.8
		1758.2	1845.7	1861.0		133201	10200.	200400	
SIDE		.,,,,,,		20000	20.20				
		1923.6	1731.4	1546.4	1516.5	1633.4	1732.8	1713.0	1739.6
		1763.8	N.G.	1848.8					
	TTER		.,,,,,						
		1816.4	N.G.	N.G.	1820.6	1831.9	1854.5	1867.7	1864.1
		2134.0							
BOTT									
	-308	N.G.	1632.6	1671.0	1661.8	1684.8	1763.3	1817.1	1845.2
309		1865 . 2			_				-
			STATIC	PRESSU	RE COEFFI	CIENTS.	CP		
NACE	LLE '	TOP							
310	-317	N.G.	-1.008	N.G.	N.G.	N.G.	P.O.	P.O.	N.G.
318	-320	N . G .	-0.193	-0.091					
NACE	LLE :	SIDE							
321	-328	N.G.	-0.076	-0.231	-0.196	-0.214	-0.233	-0.178	N.G.
329	)	-0.251							
CANC	PY S	DE							
_	-334		P.O.	N.G.	N.G.	0.001			
		ENTER LI							
			-0.304	P.O.	P•0•	-0.337	-0.061	-0.012	-0.043
CANIC	OV C	IDE							

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 79 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA 10.06	BETA -0.12	M0 G•700					
NR	PTC			В		L		M/MO
0.966		·8 1901		-			_	
		TOTA	L PRESSU	RE RATIO	OS. PT/P	TO		
INLET R	RAKE							
101-10	8 0.9663	0.9579	0.9150	0.9383	0.9712	0.9956	0.9948	N.G.
109-11	6 0.9150	0.9346	0.9735	0.9953	089980	0.9826	0.9212	0.9332
117-12	4 0.9729	0.9951	0.9974	N.G.	0.9346	0.9398	0.9737	0.9932
125-13	0 0 9 9 4 6	N.G.	0.9601	0.9620	0.9795	0.9905		
BOUNDAR	Y LAYER F	RAKE						
131-13	8 N.G.	0.7108	0.7172	N.G.	0.7217	N . G .	0.7091	0.7083
139-14	2 0.7131	0.6957	0.7171	0.7216				
BOUNDAR	Y LAYER	DUCT						
143-14	4 0.7119	0.7030						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	LL							
201-20	6 1898.5	1909.0	1904.4	N.G.	1894.0	N.G.		
RAKE BL	ILLET							
207-21	2 1855.6	1848.5	1859.3	1854.8	1840.6	N.G.		
TOP								
213-22	0 1714.7	2080.6	N.G.	1700.0	1670.1	1710.5	1724.9	1745.2
221-22	4 1759.3	1915.2	1925.3	1926.2				
SIDE								
225-23	2 2115.6	1886.1	1626.9	1547.0	1641.9	1732.2	1718.1	1741.3
233-23	6 1765.0	N.G.	1903.3	1922.3				
SPLITTE	R							
237-24	4 2057.5	N.G.	N.G.	1846.0	1842.9	1883.3	1888.1	1868.9
245	2134.0							
BOTTOM								
301-30	8 N.G.	1635.2	1671.8	1779.2	1796.9	1851.6	1877.9	1885.6
309	1901.7							
		STATIC	PRESSUR	E COEFFI	CIENTS,	CP		
NACELLE	TOP							
310-31	7 N.G.	-1.222	N.G.	N.G.	N.G.	P.O.	P.O.	N.G.
318-32	0 N.G.	-0.191	-0.090					
NACELLE	SIDE							
321-32	8 N.G.	0.037	-0.228	-0.151	-0.190	-0.221	-0.177	N.G.
329	-0.313							
CANOPY	•							
330-33		P.0.	N.G.	N.G.	0.025			
	CENTER LI							
335-34	2 0.474	-0.320	P.O.	P.O.	P.U.	-0.061	0.074	0.078
CANOPY	SIDE							
343-34	4 0.014	0.019						

## INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 3 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, PT 80 BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA	BETA	M0		LP			
NR	PTC		-		1•50 K	1 • 5 L	WC CEOS	M/MO
0.993		·3 1799		_	6.13	2.22		
00773	2117	5 1177	•0 179	4 6 1	0013	2022	1.05	0.023
		TOTA	DOCCC	DE DATI	OC - OT /D	T 0		
**** 5		IUIA	L PRESSU	RE RAIL	DS. PT/P	10		
INLET F		0.0047	0.0700	0.0401				<b>N</b> 6
_	0.9905	-	0.9733		1.0004	1.0010	1.0011	
	6 0.9972		1.0007	1.0012	1.0011	1.0014	1.0001	0.9654
	4 1.0005		1.0010	N.G.	1.0008	0.9928	1.0008	1.0013
	0 1.0008	N.G.	1.0011	1.0011	1.0010	1.0011		
_	LAYER F		0 0000	۸. اح				0.0504
131-13			0.8333	N.G.	0.8017	N.G.	0.9005	0.8586
	2 0.8329		0.7959	0.7944				
	Y LAYER (							
143-14	4 0.7719	0.7116						
				<b>.</b>				
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA								
	6 1785.0	1813.0	1822.6	N.G.	1775.4	N.G.		
RAKE BL								
	2 1813.3	1705.7	1712.2	1706.5	1692.7	N.G.		
TOP								
	0 1686.2	2099.8	N.G.	1756.8	1719•2	1736.7	1735.6	1744.4
	4 1759.6	1860.1	1863.5	1853.6				
SIDE								
	2 2122.4	1927.0	1675.7	1577.5	1637.6	1733.6	1674.9	1683.1
	6 1698.9	N.G.	1854.8	1895.1				
SPLITTE								
		N.G.	N.G.	1737.6	1726.6	1787.3	1784.2	1748.0
245	1741.5		•					
BOTTOM								
301-30		1640.3	1673.6	1813.5	1809.1	1799.7	1819.4	1824.7
309	1822.9							
		STATIC	PRESSUR	E COEFFI	CIENTS	CP		
NACELLE	TOP							
310-31	7 N.G.	-1.133	N.G.	N.G.	N.G.	P.O.	P.O.	N.G.
318-32	0 N.G.	-0.197	-0.097					
NACELLE	SIDE							
321-32	8 N.G.	0.137	-0.237	-0.075	-0.128	-0.189	-0.185	N.G.
329	-Ù.349							
CANOPY								
330-33	4 N.G.	P.0.	N.G.	N.G.	-0.082			
_	CENTER LI	NE						
335-34	2 0.470	-0.334	P.O.	P.U.	P.U.	-0.068	0.028	0.211
CANOPY	SIDE							
343-34	4 0.011	0.219						

INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT 1/5 SCALE MODEL

CTOL FLIGHT REGIME

RUN	3	BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER,
PT	81	BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	LPHA 0.06			M/M*	LP 2•00			
NR T		PSC				L		
		2 1655					2.11	
						300.		
		TOTA	L PRESSL	RE RATIO	OS. PT/P	ro		
INLET RA	KE							
		0.9873	0.9681	0.9178	1.0001	1.0011	1.0012	N.G.
		0.9211			1.0010	1.0014		
		1.0012		N.G.	1.0011	0.9960	1.0010	1.0011
125-130	1.0008	N.G.	1.0008	1.0008	1.0011	1.0011		
BOUNDARY	-							
131-138	N.G.	0.8810	0.8475	N.G.	0.8039	N.G.	0.9285	0.8828
139-142	0.8471	0.6969	0.8017	0.7921				
BOUNDARY	LAYER (	DUCT						
143-144	0.7684	0.7091						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WAL	L							
201-206	1636.2	1674.1	1687.6	N.G.	1622.7	N.G.		
RAKE BUL	-							
207-212	1772.3	1516.5	1532.3	1513.4	1493.9	N.G.		
TOP								
213-220				1556.3	1521.0	1557.2	1560.8	1580.6
221-224	1758.5	1750.3	1750.6	1734.8				
SIDE								
225-232				1304.7	1396.8	1731.4	1492•2	1491.1
233-236	1515.7	N.G.	1741.5	1795.2				
SPLITTER			4.		= _	27	=	
237-244		N.G.	N.G.	1577.5	1562.0	1645.8	1642.4	1591.0
245	1583.4							
BOTTOM								
		1641.1	1673.8	1660.5	1658.5	1656 • 4	1691.7	1699.9
309	1696.6							
			20-00-4					
		STATIC	PRESSUR	E COEFFI	CIENTS.	ÇΡ		
NACELLE		0.500	A) C			• •	2 4	41
310-317	N.G.			N•G•	N.G.	P.O.	P.O.	N.G.
	N.G.	-0.187	-0.088					
NACELLE S		0 266	0 227	0.004	0 071	0 152	0 174	A) C
321-328	N.G.	0.255	-0.227	-0.006	-0.071	-0.122	-0.176	N.G.
329	-0.344							
CANOPY S		0.0	AL C	A1 C	-0 104			
330-334		P.O.	N.G.	N•G•	-0.104			
CANOPY CE			ρ. Ο	P.0.	D . O .	-0.061	-0.010	0.166
335-342		-0.332	F.U.	F • U •	F .U.	-01001	-0.010	0.100
CANOPY S		0 101						
343-344	0.013	0.191						

1/5 SCALE MODEL

•

RYAN VZ-11 AIRCRAFT

### CTOL FLIGHT REGIME

RUN 3 BASIC CANOPY 24E OVAL INLET LONG SPLITTER DE BOUNDARY LAYER DUCT OPEN BOTH ENGINES OPERATIVE

A	LPHA	BETA	MO	M/M*	LP	RP	BP	•
1	0.06	-0.12	0.700	0.905	2.51	2.5	0 CLOS	ED
NR	PTC		PS		K	L	WC	M/MO
					9.94	3.56	2.23	0.990
		TOTA	L PRESSU	RE RATIO	S. PT/P	TO		
INLET RA	KE							
101-108	0.9677	0.9816	0.9692	0.9031	0.9996	1.0000	1.0007	N.G.
109-116	1.0001	0.9090	1.0001	1.0012	1.0011	1.0014	1.0008	0.9575
117-124	1.0007	1.0011	1.0011	N.G.	1.0010	0.9965	1.0006	1.0011
		N.G.	1.0008	1.0008	1.0008	1.0010		
BOUNDARY				_				
131-138	N.G.	0.8939	0.8538	N.G.	0.8053	N.G.	0.9393	0.8959
-		0.6985	0.8049					
BOUNDARY	=							
		0.7076						
								٠
		INL	FT STATE	C PRESSU	JRES. PS			
RAKE WAL	i.	• • • • • • • • • • • • • • • • • • • •						
	1550.7	1595.9	1611.7	N.G.	1536.6	N.G.		
RAKE BUL					.,,,,,,	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	1590.2	1404.7	1415.2	1395.4	1370.5	N.G.		
TOP		210101		23700				
	1874.5	1992.3	N.G.	1430.4	1379.6	1432.9	1444.0	1469.7
	1752.0			1665.6				
SIDE	1,32,00	100104	100761	100340				
J I U L								

225-232 2128.7 1709.9 1308.7 1102.3 1207.1 1729.7 1355.9 1373.9 233-236 1406.7 1680.3 1741.0 N.G. SPLITTER N.G. 1489.4 237-244 2136.0 1463.7 1571.6 1565.7 N.G. 1503.8 245 1494.8 BOTTOM 301-308 N.G. 1696.3 1677.9 1568.9 1569.9 1572.5 1624.7 1632.8

309 1629.3

STATIC PRESSURE COEFFICIENTS. CP NACELLE TOP 310-317 N.G. -0.435 N.G. N.G. N.G. P.O. -0.369 N.G. N.G. -0.185 318-320 -0.007 NACELLE SIDE 321-328 0.312 -0.221 0.027 -0.038 -0.112 N.G. 0.647 N.G. -0.341 329 CANOPY SIDE 330-334 N.G. P.O. N.G. N.G. -0.113 CANOPY CENTER LINE P.O. P.O. P.0. -0.059 -0.027 335-342 0.470 -0.334 CANOPY SIDE 343-344 0.464 0.172

RUN 3 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RF	<b>В</b> Р	11
	0.01	-0.11	0.799	0.892	2.51	2 • 5	O CLOS	ED
NR	PTC	PSC	PS	SB	K	L	WC	M/MO
0.977	2087	6 1558	•5 150	7.9	11.58	3.69	2.19	0.927
		TOTA	L PRESSU	RE RATI	OS. PT/P	TO		
INLET R	RAKE .							
101-10	8 0.9371	0.9798	0.9677	0.8868	0.9771	0.9984	1.0000	N.G.
109-11	6 0.9857	0.9018	0.9774	0.9969	0.9988	0.9984	0.9874	0.9372
117-12	4 0.9799	0.9963	0.9982	N.G.	0.9886	0.9644	0.9840	0.9951
125-13	0.9962	N.G.	0.9896	0.9834	0.9880	0.9934		
BOUNDAR	Y LAYER I	RAKE						
131-13	18 N.G.	0.8228	0.8067	N.G.	0.7774	N.G.	0.8709	0.8458
13914	2 0.8212	0.8038	0.7864	0.7770				
BOUNDAR	Y LAYER I	DUCT						
143-14	4 0.7433	0.6592						
		INL	ET STATI	C PRESS	URES. PS			
RAKE WA	LL				_ ,			
201-20	6 1537.1	1580.6	1596.7	N.G.	1519.6	N.G.		
RAKE BL	LLET							
	2 1371.1	1391.2	1402.7	1384.7	1361.5	N.G.		
TOP								
	0 2013.2	1880.2	N.G.	1268.9	1257.9	1366.0	1396.0	1431.0
	4 1461.2	1672.7	1676.6	1656.9			_	
SIDE			-					
_	2 2095.6	1889.5	1503.8	1233.0	1305.0	1336 • 1	1340.3	1356.7
233-23		N.G.	1665.3	1734.8				
SPLITTE		,,,,,						
	4 2112.8	N.G.	N.G.	1478.1	1449.9	1557.2	1552.4	1492.5
245	1481.2							
BOTTOM	.40101							
301-30	8 N.G.	1580.7	1579.4	1581.7	1573.5	1555.1	1603.7	1614.7
	1613.9							
307	101307							
		STATIC	PRESSUR	E COEFF	CIENTS.	CP		
NACELLE	TOP	• • • • • • • • • • • • • • • • • • • •				•		
	7 N.G.	-0.033	N.G.	N.G.	N.G.	P.O.	P.O.	N.G.
	0 N.G.					. • • •		
NACELLE								
321-32		-0.061	-0-134	P.0.	PaOa	P.O.	P. 0.	N.G.
329	P.O.	01001		. 505				.1104
CANOPY								
330-33		P.O.	N.G.	N.G.	P.O.			
	CENTER LI			.,,,,,				
	2 0.628		P.O.	P.O.	P.O.	P.O.	-0.011	0.201
CANOPY	_			. 304				
	4 -0.010	0.210						
J-J J-	- 00010	00010						

1/5 SCALE MODEL

343-344 -0.006

0.214

CTOL FLIGHT REGIME

RYAN VZ-11 AIRCRAFT

RUN 3 BASIC CANOPY • 24E OVAL INLET • LONG SPLITTER • BOUNDARY LAYER DUCT OPEN • BOTH ENGINES OPERATIVE

	ALPHA	ВЕТА	MO	M/M*		RP	ВР	
	_	-0.11				2.00		
NR			PS	5B	K	L	WC	
0.982	2097	9 1559	•7 150	9.9	17.89	3.73	2.20	0.935
		TOT 4	. 00555	IDE DATE	O.C. D.T. (D.)	•		
TAU = T 0	A 14 5	IOIA	L PRESSU	NE RAIL	OS. PT/P	10		
INLET R		0.000	0.0443	0.0070	0.0775	0.0000	0 0000	N.G.
	8 1.0635		0.9667	0.8878	0.9775	-	0.9999	0.9394
	6 0.9861		0.9780	0.9975	0.9990		0.9873	0.9949
	4 0.9500		0.9984	N.G.	0.9880	-	0.9834	007747
	0 0.9958	N.G.	0.9887	0.9831	0.9873	0.9928		
	Y LAYER F		0.010/	A1 C	0 7067	A) C	0 0773	0 0502
	8 N.G.		0.8104		0.7856	N.G.	0.8772	0.8502
	2 0.8250		0.7924	0.7797				
	Y LAYER I							
143-14	4 0.7452	0.6607						
		INL	ET STATE	C PRESS	URES. PS			
RAKE WA	LL							
201-20	6 1537.4	1582.3	1598.7	N.G.	1520.5	N.G.		
RAKE BU	LLET							
207-21	2 1373.7	1393.1	1406.7	1387.5	1362.4	N.G.		
TOP								
213-22	U 2012.3	1883.0	N.G.	1281.3	1272.0	1371.7	1398.8	1436.6
221-22	4 1466.0	1673.5	1678.6	1658.0				
SIDE								
225-23	2 2095.9	1892.0	1511.7	1245.8	1313.5	1344.6	1350.2	1360.4
233-23	6 1388.6	N.G.	1667.0	1735.6				
SPLITTE	R							
237-24	4 2111.2	N.G.	N.G.	1481.2	1455.3	1558.3	1554.1	1493.4
245	1482.9							
BOTTOM								
301-30	8 N.G.	1575.0	1580.1	1579.4	1575.0	1555.6	1605.0	1617.5
309	1615.2							
		STATIC	PRESSUR	RE COEFF.	ICIENTS.	CP		
NACELLE								
330-31			N.G.	N.G.	N.G.	P.O.	P.O.	N.G.
318-32		P.O.	P.O.					
NACELLE				•		_	_	
321-32		-0.059	-0.131	P.0.	P.O.	P.O.	P. 0.	N.G.
329	P•0•							
CANOPY								
330-33		P.U.	N.G.	N.G.	P.O.			
	CENTER LI							_
	2 0.628	-0.074	P.O.	P.O.	P.O.	P.O.	-0.006	0.203
CANOPY	SIDE							

RUN 3 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*				
	0.01	-0.11						
NR	PTC				K	L	WC	M/MO
0.977	2086	•9 1694	4 166	54.5	9.79	2.71	1.97	0.835
						_		
		TOTA	L PRESSU	JRE RATIO	US. PT/P	TO		
INLET F		0.000	0.0400	0.0007	0.034.		0.0004	<b>A</b> 1. (
	08 0.9665				0.9754	0.9980		
_	16 0.9776		0.9751			0.9975		0.9313
	24 0.9769			N.G.			0.9804	0.9938
	30 0.9946		0.9861	0.9787	0.9853	0.9915		
	RY LAYER F		0.7042	AL C	0 7762	N. G.	0.8458	0.8239
131-13	2 0.8042	0.8139 0.7919	0.7790	N•G• 0•7711	0.7752	N.G.	0.0450	0.0239
			0.1190	0.7711				
	RY LAYER ( 4 0.7390							
143-14	4 06/370	0.0000						
		INI	FT STATI	C PRESSI	RES. PS			
RAKE WA	AT 1	1112	LI OIAII	ic incoor	one, or to			
—	6 1680.6	1709.9	1721.8	N.G.	1665.3	N.G.		
RAKE BL								
	2 1560.3	1572.1	1584.6	1576.1	1558.0	N.G.		
TOP								
213-22	20 1933.3	1969.4	N.G.	1489.4	1491.4	1550.7	1569.3	1591.9
221-22	24 1612.2	1771.5	1776.0	1762.5				
SIDE								
225-23	2 2044.8	1975.6	1681.1	1490.3	1528.1	1539.4	1532.3	1542.2
233-23	6 1559.7	N.G.	1763.6	1810.9				
SPLITTE	R							
237-24	4 2107.5	N.G.	N.G.	1621.3	1605.7	1682.3	1678.9	1636.0
245	1625.8							
BOTTOM								
301-30	8 N.G.	1728.3	1720.8	1715.0	1710.6	1693.2	1718.3	1726.7
309	1725.7							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE						-	•	
310-31			N.G.	N.G.	N.G.	P.O.	P.O.	N.G.
318-32		P.O.	P.O.					
NACELLE				0.0	15 (5)	5.0	5 0	
321-32		-0.183	-0.216	P.O.	P.O.	P. 0.	P.O.	N.G.
329	P.O.							
CANOPY		0.0	N C	N.C	ρ. Ω			
330-33		POO	N.G.	N•G•	P.O.			
	CENTER LI 2 0.629		P.O.	P.O.	P.0.	P.O.	0.012	0.244
CANOPY		0,013	, , ,			F	01012	V1244
-	4 0.013	0.242						
フマンニンテ	- CECT3	マラムマジ						

RUN 3 BASIC CANOPY + 24E OVAL INLET + LONG SPLITTER + PT 86 BOUNDARY LAYER DUCT OPEN + BOTH ENGINES OPERATIVE

	ALPHA	BETA	M0	M/M*	LP	RP		
ALO.	_	-0.11			1.00		MC OFF	M/MO
NR	PTC				K	L 1-27		
U•979	2090	7 1887	•0 107	1 . 3	6.73	1.27	1.50	0.637
		TOTA	I PRESSU	RE RATIO	S. PT/P	TO		
INLET R	PAKF	1017	E INESSO	NC KATT				
	8 0.9824	0.9927	0.9653	0.9340	0.9726	0.9981	0.9995	N.G.
	6 0.9754		0.9725	0.9970	0.9988	0.9972	0.9782	0.9393
	4 0.9728		0.9972	N.G.	0.9801	0.9520	0.9754	0.9939
	0.9949	N.G.	0.9832	0.9725	0.9818	0.9913		
	Y LAYER F			••••		••••		
131-13			0.7673	N.G.	0.7564	N.G.	0.7934	0.7786
	2 0.7667		0.7538	0.7534				
	Y LAYER							
	4 0.7182	0.6542						
DAKE MA	4-4	INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	1881.6	1894.9	1900.2	N.G.	1873.7	N.G.		
RAKE BU		109469	1900.2	14.0.	10/30/	14.0.		
	2 1819.5	1825.1	1832.5	1832.8	1817.8	N.G.		
TOP	2 101767	102341	103263	1032.00	101/40	N. 0.		
	0 1749.2	2081.5	N.G.	1772.9	1758.8	1788.7	1796.1	1808.5
	4 1820.9	1920.6	1926.2	1921.1	117040	1,000,	117001	10000
SIDE	4 102049	192000	172002	172161				
	2 1887.8	2088.0	1920.0	1792.1	1795•2	1790.1	1777.4	1792.9
233-23		N•G•	1915.5	1948.0	117702	117001	211101	117207
SPLITTE	_	,,,,,,	1,1343	174000				
	4 2104.1	N.G.	N.G.	1839.8	1831.3	1873.4	1873.1	1850.5
245	1845.2	.,,,,,						
BOTTOM	10.702							
	8 N.G.	1898.1	1900.4	1899 4	1896.3	1886.9	1895.8	1899.9
309	1899.1							
		STATIC	PRESSURI	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
	7 N.G.	-0.549	N.G.	N.G.	N.G.	P.O.	P.O.	N.G.
318-32	0 N.G.	P.O.						
NACELLE								
321-32		-0.490	-0.410	P.O.	P.O.	P.0.	P.O.	N.G.
329	P.O.		_			-	-	• - •
CANOPY								
330-33		P.O.	N.G.	N.G.	-0.056			
CANOPY	CENTER LI							
335-34	2 0.628	-0.073	P.O.	P.O.	P.O.	P.0.	0.081	0.305
CANOPY	SIDE							

READ TUBES HORIZONTALLY AND CONSECUTIVELY.

N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID. PAGE

343-344 0.073

0.279

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 87 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	МО	M/M*	LP	RP	ВР	
		-0.11				0.5		N
NR	PTC				K	L	WC	M/MO
					1.78	0.41	0.89	0.379
		TOTA	L PRESSU	JRE RATIO	05. PT/P	TO		
INLET R	<b>AKF</b>					. •		
	8 0.9212	U.9218	0.9172	0.9225	U.9296	0.9299	0.9274	N.G.
	6 0.9180		0.9290		-		0.9200	0.9212
	4 0.9290			N•G•	0.9235		0.9287	0.9311
	0.9338	N•G•	0.9296			0.9338	00,20.	
	Y LAYER F	•	047270	007273	007321	00,,,,0		
_		0.6552	0.6402	N.G.	0.6572	N.G.	P.U.	P.0.
_	2 0.6315		0.6500	0.6515	0.6575	14.00	F . 0 .	
	Y LAYER (		0.000	0.6313				
	4 U.6459	_						
142-14	4 040439	0.0304						
		TAIL	ET CTATI	C DDECCI	JRES. PS			
DAKE WA	•	INL	EI SIAII	C PRESSU	JKES! PS			
RAKE WAL		1000	1012 2	A) C	1000 0	AL C		
	5 1905.0	1909.0	1913.2	N.G.	1909•0	N.G.		
RAKE BUL	_	1401 (	10.45-3	1001 0	1075 0			
	2 1879.9	1881.6	1805.3	1881.9	1872.3	N.G.		
TOP			147				. =	
	1907.0	1912.7		1523.0	1570.5	1661.9	1708.8	1746 • 1
	1770.1	1885.6	1904.5	1913.8				
SIDE								
	2 1869.5		1678.3	1595.9	1680.6	1730.3	1753.4	1775•4
	1795.8	N.G.	1896.3	1913.2				
SPLITTER								
237-244	1899.4	N.G.	N.G.	1870.6	1874.5	1891.8	1900.0	1894.6
245	1897.7							
BOTTOM								
301-308	N.G.	1631.8	1698.6	1742.3	1771.7	1853.9	1892.7	1900.9
309	1906.5							
		STATIC	PRESSUR	E COLFFI	CIENTS.	CP		
NACELLE	TOP							
310-317	7 N.G.	-0.338	N.G.	N•G•	N.G.	P.O.	P.0.	N.G.
318-320	N.G.	P.U.	P.O.					
NACELLE	SIDE							
321-328		-0.464	-0.488	P.0.	P.U.	P.O.	P.O.	N.G.
329	P.O.							
CANOPY S								
330-334		P.O.	N.G.	N.G.	-0.055			
	ENTER LI				_			
	0.631		P.O.	P.0.	P.O.	P.O.	0.018	-0.001
CANOPY S		-						
-	-0.001	P.O.						

1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 88 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RP	вР	
	-4.02	-0.11	0.800	0.369	0.51	0.50	OPEN	4
NR	PTC	PSC	PS	В	K	L	WC	M/MO
U.994	2122	9 2055	• 9 205	1.0	2.36	0.49	0.90	0.383
		TOTA	L PRESSU	DE DATIO	OS. PT/P	TΛ		
TAU ET E	DAVE	TOTA	L PRESSU	KE KAII	731 7177	10		
INLET F	NANE 18 0.9984	1.0000	0.0044	0.9776	0.9907	1.0011	1.0008	N.G.
	16 0.9932				1.0008	1.0006	0.9928	0.9836
117-12	4 0.9909	1.0002	1.0004	N.G.	0.9931	0.9860	0.9920	0.9993
125-13	30 0.9998	N.G.	0.9947	0.9915	0.9942	0.9986		
	Y LAYER F							
	8 N.G.		0.8616	N.G.	0.8359	N.G.	0.9199	0.8884
	2 0.8610		0.8312					
	RY LAYER I		000312	0.0210				
143-14	4 0.7772	0.6/14						
		7 411	CT CTATE	C DDE CCI	DEC. DC			
D. 45		INL	EI SIMII	C PRESSU	IRES. PS			
RAKE WA								
201-20	6 2053.7	2059.0	2060.7	N.G.	2050.3	N.G.		
RAKE BL	JLLET							
207-21	2 2032.5	2034.8	2037.9	2038.7	2027.4	N.G.		
TOP			_ <del>-</del>					

MANE MAI	- L							
201-206	5 2053.7	2059.0	2060.7	N.G.	2050.3	N.G.		
RAKE BUL	LLET							
207-212	2 2032.5	2034.8	2037.9	2038.7	2027.4	N.G.		
TOP								
213-220	1372.7	2122.9	N.G.	2065.8	2045.5	2046.6	2044 • 1	2044.6
221-224	4 2044.9	2068.6	2069•2	2067.5				
SIDE								
225-232	2 1274.7	2090.1	2134.2	2104.8	2081.6	2068.1	2057.9	2050.6
233-236	5 2048.9	N.G.	2066.7	2077.1				
SPLITTER	२							
237-244	4 2126.2	N.G.	N.G.	2039.6	2037.3	2050.6	2049.7	2042.7
245	2041.0							
BOTTOM								
301-308	B N.G.	2087.9	2078.0	2072.1	2066.7	2058.0	2058.8	2060.6
309	1060.1							

301-308 309	N.G. 1060.1	2087•9	2078.0	2072•1	2066•7	2058.0	2058.8	2060•6
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE T	OP							
310-317	N.G.	-1.192	N.G.	N.G.	N.G.	P.O.	P.O.	N.G.
318-320	N.G.	P.O.	P.O.					
NACELLE S	IDE							
321-328	N.G.	-1.070	-1.022	P.O.	P.O.	P.O.	P. 0.	N.G.
329	P.O.							
CANOPY SI	DE							
330-334	N.G.	P.O.	N.G.	N.G.	0.003			
CANOPY CE	NTER LI	NE						
335-342	0.675	0.022	P.O.	P.U.	P.U.	P.O.	0.223	0.527
CANOPY SI	DE							
343-344	0.191	0.478						

CTUL FETONT REGIME

RUN 3 BASIC CANOPT. 24E OVAL INLET. LUNG SPLITTER.
PT 89 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA -0.11	MU 0 - 799	M/M*	LP 1•00	RP 1•0		NI.	
NR	PTC	PSC			K	L	WC O. L.	M/M0	
0.996		3 1908				1.62			
		TOTA	L PRESSL	RE RATIO	S. PT/P	ГО			
INLET R									
	0.9919		0.9951	0.9619		1.0052	1.0053	N.G.	
	6 0.9958	0.9751	0.9922	1.0035	1.0046	1.0046	0.9964	0.9833	
	4 0.9936		1.0040	N.G.	0.9970	0.9885	0.9953	1.0023	
	0 1.0032	N•G•	0.9983	0.9950	0.9980	1.0019			
	LAYER F								
131-13			0.9006		0.8490	N.G.	0.9667	0.9417	
	2 0.9055	0.8791	0.8505	0.8344					
	LAYER D								
143-14	4 0.7844	0.6758							
		7 444	<b></b>	C DD! CC!	IDEC. DC				
DAKE MA		INL	ET STATI	CPRESSU	JRES. PS				
RAKE WA	6 1901.5	1916.7	1924•1	N.G.	1889.6	N.G.			
RAKE BU		191001	172461	14.0.4	1009.0	N.G.			
	2 1839.9	1845.6	1851.8	1849.8	1836.3	N.G.			
TOP	2 105767	1047.0	1071.0	104780	103003	N.O.			
	0 1732.1	2098.6	N.G.	1844.5	1833.5	1853.5	1855.8	1863.9	
	4 1871.8	1949.8	1951.5	1943.3	10000	1033.5	1075.0	100367	
SIDE	4 10/140	1,4,00	177107	174363					
225-23	2 1698.2	2132.2	2033.4	1919.6	1893.6	1879.2	1868.7	1856.0	
233-23		N•G•	1943.6	1974.1	10,300	101702	10000.	100000	
SPLITTE		,,,,,,,	174300	17,401					
	4 2126.8	N.G.	N.G.	1870.4	1864.5	1898.1	1895•6	1872.4	
245	1867.9	14000		10.00	100403	10,001	10,500	1012.44	
воттом	100,0								
301-30	8 NoGo	1956 • 2	1939.8	1933.7	1927.0	1913.7	1925.8	1932.7	
309	1932.2								
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP			
NACELLE	TOP								
310-31	7 N.G.	-0.341	N.G.	N.G.	N.G.	P. 0.	P.O.	N.G.	
318-32	U N.G.	P.O.	P.O.						
NACELLE	SIDE								
321-32	8 N.G.	-0.761	-0.675	P.0.	P. U.	P.O.	P.O.	N.G.	
3 <b>2</b> 9	P.O.								
CANOPY	SIDE								
330-33			N.G.	N.G.	-0.061				
CANOPY CENTER LINE									
	2 0.673	0.017	P.O.	P.O.	P.U.	P. 0.	0.105	0.410	
CANOPY									
343-34	4 0.087	0.379							

1/5 SCALE MODEL

343-344 0.029 0.279

CTOL FLIGHT REGIME

RYAN VZ-11 AIRCRAFT

RUN	3	BASIC CANOPY , 24E OVAL INLET . LONG SPLITTER .
PT	90	BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*		RP			
N.O.		-0.11			1.50				
NR	PTC		PS		K	L	WC	M/M0	
0.990	2114	•5 1702	• / 16 /	0 • 1	1.63	3.04	2.01	0.857	
		TOTA	L PRESSU	RE RATIO	S. PT/P1	ГО			
INLET R	AKE					. •			
	8 0.9605	0.9950	0.9901	0.9273	0.9872	1.0028	1.0029	N.G.	
	6 0.9934		0.9881	1.0025	1.0025	1.0026		0.9795	
117-12	4 0.9897		1.0023	N.G.	0.9945	0.9855	0.9921	1.0013	
	0 1.0016	N.G.	0.9962	0.9920	0.9953	1.0002			
	Y LAYER I								
	8 N.G.		0.9065	N.G.	0.8468	N.G.	0.9747	0.9529	
	2 0.9147		0.8514	0.8291					
	Y LAYER								
	4 0.7822								
<b>6.45</b>		INL	ET STATIO	C PRESSU	RES. PS				
RAKE WA		1746	. 704 - 6						
	6 1688.0	1718.3	1734.3	N.G.	1670.0	N.G.			
RAKE BU									
	2 1566.6	1578.8	1596.0	1582.4	1561.8	N.G.			
TOP	0 1000	1044 7	<b>A</b> 1 C			1576 5	1605		
	0 1980.3	1944.7		1496.9	1514.1	15/6.5	1595.4	1618.3	
	4 1634.4	1787.4	1788.0	1771.6					
SIDE									
	2 1971.0	2039.6	1776.7	1585.3	1591.2	1590.9	1590.9	1572.3	
	6 1585.3	N.G.	1779.0	1834.6					
SPLITTE									
	4 2125.1	N.G.	N.G.	1639.5	1623.1	1694.3	1688.0	1641.7	
245	1633.5								
BOTTOM		_							
		1742.6	1733.4	1733.1	1725.7	1706.3	1736.0	1748.5	
309	1748.0								
			0056640		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	40			
	<b>TOD</b>	STATIC	PRESSURE	COEFFI	CIENTS	CP			
NACELLE		• • • •	N 6	A4 . C	A. C	0.0	<b>5</b> ()		
310-31		-0.018	N.G.	N.G.	N.G.	P.O.	P.0.	N.G.	
318-32		P.O.	P.O.						
NACELLE		2				• •			
321-32		-0.421	-0.397	P.U.	P.U.	P.O.	P.0.	N.G.	
329	P.O.								
CANOPY SIDE									
330-33		P.O.	N.G.	N.G.	P.O.				
	CENTER LI								
335-34	_	0.018	P.O.	P.O.	P.O.	P.O.	0.037	0.289	
CANOPY SIDE									

## INLET PRESSURE SURVEY

ALPHA BETA MO M/M\* LP RP BP

1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

### CTOL FLIGHT REGIME

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 91 BUUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	-4.02	-0.11		0.899	1.99		O UPE	
NR	PTC				K	L	WC U. E	M/M0
∪.987		3 1578	_			3.88		
0.901	2100		152	. 7 . 0	9.02	5.00	2017	00933
		TOTA	ו ספבנו	IDE DATE	OS. PT/P	TA		
TALLET I	DAVE	1017	L PRESSU	NE KAIL	J31 P17P	10		
INLET F		0 0004	0.0000	0.00(3	0 0061	1 0011	1 0011	N.G.
	08 0.9349		0.9883	0.9062	0.9861	1.0011	1.0011	
	16 0.9935		0.9875	1.0010	1.0010	1.0012	0.9938	0.9798
	24 0.9892		1.0006	N.G.	0.9944	0.9855	0.9916	1.0001
	1.0000	N.G.	0.9956	0.9917	0.9948	0.9994		
	RY LAYER H							
131-13			0.9191	N.G.	0.8517	N.G.	0.9797	0.9653
_	2 0.9280		0.8568	0.8304				
BOUNDAR	RY LAYER S	DUCT						
143-14	4 0.7830	0.6765						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	\LL							
201-20	6 1556.5	1599.1	1620.3	N.G.	1538•4	N.G.		
RAKE BU	JLLET							
207-21	2 1395.0	1414.2	1430.0	1409.6	1382.0	N.G.		
TOP								
	2052.3	1849.0	N.G.	1288.0	1306.9	1412.2	1437.6	1471.5
221-22	4 1498.0	1694.8	1697.6	1674.5				
SIDE								
	2 2042.7	1968./	1626.8	1372.7	1403.7	1411.3	1417.5	1402.9
	6 1424.6	N.G.	1688.0	1756.9				
SPLITTE		11000	10000	1,,,,,,				
	4 2127.4	N.G.	N.G.	1507.3	1482.8	1579.6	1572.8	1513.0
245	1502.5	11101		150,05	140200	131700	131240	131300
	1502.5							
BOTTOM	NU A) C	1600 6	1600 0	1610 6	1404.7	1570 7	1420.6	1641 6
301-30		1000.4	1003.0	19100	1604.7	131961	1628.5	1641.6
309	1642.1							
			DDCCC	5 60555	615N26	<b>.</b>		
	*05	STATIC	PRESSUR	E COEFFI	CIENIS	CP		
NACELLE		0 0 10	A) 6			0.0	0.0	<b>A</b> 1
310-31		0.089	N.G.	N•G•	N.G.	P.0.	P. 0.	N.G.
318-32		P.O.	P.O.					
NACELLE								
321-32		-0.275	-0.303	P.O.	P.O.	P.0.	P.O.	N.G.
329	P.O.							
CANOPY	SIDE							
330-33	4 N.G.	P.O.	N.G.	N.G.	P.U.			
CANOPY	CENTER LI	NE						
335-34	2 0.670	0.014	P.O.	P.O.	P.O.	P.O.	0.006	0.235
CANOPY	_							
343-34	4 0.003	0.236						

## INLET PRESSURE SURVEY 1/5 SCALE MODEL R

RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN 3 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 92 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

					LP		_	
					2.51			
NR		PSC			K	L	WC	M/MO
0.987	2106	4 1576	•2 152	4.6	9.65	<b>3</b> • <b>9</b> 0	2.19	0.933
						_		
		TOTA	L PRESSU	RE RATIO	DS. PT/P	10		
INLET R								
	8 0.9341		0.9865	0.9056		1.0008	1.0006	
	6 0.9920		0.9865	1.0008		_	0.9925	0.9778
	4 0.9878			N•G•			0.9904	1.0000
	0 1.0000		0.9945	0.9905	0.9939	0.9990		
	Y LAYER F							
	8 N.G.			N•G•	0.8476	N.G.	0.9781	0.9592
	2 0.9210		0.8530	0.8284				
	Y LAYER							
143-14	4 0.7808	0.6749						
		• ***		6 555 561	1056 06			
0.445 114		INL	EL STATI	C PRESSI	JRES. PS			
RAKE WA	_	1404 4	1410 2		1504 1			
	6 1553.4	1596.8	1618.3	N•G•	1536.1	N.G.		
RAKE BU					1000			
	2 1391.6	1411.3	1422.6	1406.8	1380.3	N.G.		
TOP	2012 1	30.7	N 6	1270 6	1005 /	1404 5		1445 0
	0 2053.1	1847.3	N.G.	1279.5	1295.6	1406.5	1431.9	1465,8
	4 1494.1	1692.6	1695.4	1672.2				
SIDE	2 20/2 1	1044 7	1400	1043 0	1207 2	1400 0	1202 /	1000
	2 2042.1		1623.1	1363.9	139702	1400.9	1392.4	1398.1
	6 1420.7	N.G.	1686.1	1755.5				
SPLITTE		AL C	AL C	1602 /	1478.0	1577 0	1671.4	1611 0
	4 2123.4	N.G.	N.G.	150364	14/8.0	15//49	19/104	1511.0
245	1499•4							
BOTTOM		1508 1	16/19 1	1400 0	1602•7	1677 /	1424.7	1630 0
		1340 • 1	1000 1	100700	100201	15//4	102001	1039.0
309	1639.5							
		CTATIC	DDECCUD	E COEEE1	CIENTS.	CD		
NACELLE	TOP	SIAITC	PRESSUR	COEFFI	CIENTSI	CF		
	7 N.G.	0.094	Na(sa	NaGa	N.G.	PaQa	P.0.	N.G.
		P.O.		11000	11000			
NACELLE								
321-32		-0.272	-0.296	P.O.	P.U.	P.O.	P.0.	N.G.
329	P.O.	J. C. L	77270	. 300				
CANOPY								
330-33		P.O.	N.G.	N.G.	P.O.			
	CENTER LI							
	2 0.673		P.O.	P.0.	P.O.	P.O.	0.010	0.237
CANOPY		J • • • •		. 300				
		0 007						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.

N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID. PAGE

343-344 0.006

0.237

### CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 1 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

•	5 <b>-0</b>						• • •	
	ALPHA	BETA	МО	M/M*	LP	RP	ВР	1.
	4.03	-0.12	0.798	G•718	1.00	1.0	1 OPE	N
NR					K		WC	
0.858	1835	• 0 1474	0 149	4.7	23.91	1.46	1.75	0.746
		TOTA	L PRESSU	RE RATI	OS. PT/P	го		
INLET R			5 <b>-</b> 4 - 5 - 5					<b>A.</b> 6
					0.8456		-	N.G.
			0.8503			0.9147		
		0.9420			0.7987		0.8405	0.9280
	0 0.9358		0.8392	0.8193	0.8596	0.9090		
	Y LAYER F		0.2400	<b>A.</b>	6 2515		0 2251	0 3204
		0.3749			0.3515	N.G.	0.3251	0.3284
		-	0.3456	0.3494				
	Y LAYER L 4 U.3463							
143-14	4 0.3463	0.3200						
		TAU	ET STATE	C DDECC	URES. PS			
RAKE WA	1.1	1146	CI SIAII	C FRESS	OKEST FS			
	6 1463.9	1487.3	1484.2	N.G.	1460.5	N.G.		
RAKE BU		1.0.05	110142		1,000			
	2 1343.3	1361.4	1391.1	1382.0	1351.5	N.G.		
TOP								
	0 1703.3	1738.1	N.G.	679.3	673.6	892 • 1	972.9	1045.5
	4 1108.7		1513.3	1523.5				
SIDE								
225-23	2 1962.0	1517.5	886.2	612.3	852.6	987.3	1026.8	1075.4
233-23	6 1127.9	N.G.	1462.5	1517.8				
SPLITTE	R							
237-24	4 1718.3	N.G.	N.G.	1337.1	1333.5	1413.9	1433.4	1399.2
245	1397.3							
BOTTOM								
301-30	8 N.G.	1106.6	1166.7	1220•4	1241•9	1336 • 8	1418.4	1445.5
309	1470.3							
		STATIC	PRESSUR	E COEFF	ICIENTS.	CP		
NACELLE		. 7.0						
310-31			N.G.	N.G.	N.G.	-2.076	-1.869	N.G.
318-32		-1.500	-1.311					
NACELLE					. 704	. 757	3 5 4 4	<b>.</b>
321-32		-1.345	-1.505	-1.629	-1.704	-1.756	-1.544	N.G.
329	-1.716							
CANOPY		_1 015	A) C	AL C	-1 201			
	4 N.G. CENTER LI		N.G.	NOGO	-1.281			
-	2 0.039	-1.402	P.U.	P = () =	-2.000	-1.775	-1.249	-1.058
CANOPY :	_	1.402	,		2 000	14/17	-11270	-1-078
	4 -1.221	-1.121						
J4 J~ 540	7 - 10221	-10121						

# 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 2 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	RFTA	МО	M/M*	LP	RP	ВР	
	4.03	-0.12			1.50			
NR		PSC			K	L		M/MO
0.948	_	_			13.32	1.81	_	0.772
04740	2020	10,0	• 10.			1001	1002	00112
		TOTA	I PRESSI	RE RATIO	S. PT/P	τo		
INLET R	AKE	1014	L THEOSE	ME NATIO		. 0		
	8 0.9476	0.9591	0.8911	0.8724	0.9431	0.9950	0.9964	N.G.
	6 0.9089		0.9408	0.9937		0.9901	0.9226	0.8761
	4 0.9385			N•G•	0.9343	0.8944	0.9407	0.9856
	0.9864	N•G•	0.9506	0.9321	0.9544	0.9782	007401	007030
	Y LAYER I		0.7500	0.7321	0 6 7 3 4 4	0.5702		
	8 N.G.		0.7172	N.G.	0.7171	N.G.	0.7312	0.7237
	2 0.7186		0.7147	0.7143	00/1/1	14.00	00/312	001231
	-		01147	00/143				
	Y LAYER I							
143-14	4 0.6982	0.6594						
			CTAT.	c 000000	10.5.1 D.C			
DAKE WA		INL	EI SIAII	C PRESSU	IRES. PS			
RAKE WA		1704 2	1706	A1 C	1440 5	A		
	6 1680.7	1706.2	1705.6	N.G.	1669.5	N.G.		
RAKE BU								
	2 1569.5	1583.1	1603.4	1596.9	1576.3	N.G.		
TOP	0.1000	1010					1400 0	
	0 1939.4	1943.3	N.G.	1389.1	1382.0	1463.1	1493.3	1526.6
	4 1552.0	1746.8	1755.0	1749.1				
SIDE							=	
	2 2107.7		1485 • 1	1294.8	1386.0	1461.6	1476.6	1487.1
233-23		N.G.	1733.5	1779.0				
SPLITTE								
	4 2038.5	N.G.	N.G.	1610.4	1595.5	1666.6	1671.1	1632.5
245	1625.4							
BOTTOM								
301-30		1665.5	1666.0	1668•6	1667.6	1670.1	1689.3	1699.8
309	1704.4							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE								
310-31	7 N.G.			N.G.	N.G.	-0.389	-0.332	N.G.
318-32	C N.G.	-0·163	-0.070					
NACELLE	SIDE							
321-32		0.043	-0.050	-0.136	-0.186	-0.242	-0.185	N.G.
329	-0.289							
CANOPY.								
330-33	4 NoGo	-0.325	N.G.	N.G.	-0.084			
CANOPY	CENTER LI	NE						
335-34	2 0.607	-0.117	-0.575	-0.970	-0.530	-0.434	-0.068	0.139
CANOPY	SIDE							

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

0.146

343-344 -0.042

## 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA 4.03	BETA -0.12	<b>MO</b> 0•799	M/M# 0.858		RP 2 • 0		N
NR	PTC				K	L	WC OF E	M/M0
0.957		0 1555	_	_		3.05	2.09	0.891
	2040	• 1 1 1 1 1	• 5 1 2 1	0 6 2	14072	3.03	200	00071
		TOTA	DDESCH	DE DATI	OS PT/P	0.1		
INLET F	AVE	1017	L PRESSO	ME MAIL	031 P17P			
	8 0.9322	0.9520	0.9126	0.8592	0.9492	0.9959	0.9981	N.G.
	6 0.9462		0.9448	0.9950		0.9961	0.9585	0.8836
	4 0.9461		0.9956	N.G.		0.9149	0.9547	0.9903
	0 0 9915	N•G•	0.9750	0.9565		0.9867	00/341	
	LAYER I		049730	009303	0.9709	0.7007		
131-13			0.7380	N.G.	0.7310	N.G.	0.7680	0.7552
	2 0.7454		0.7327	0.7302	0.7310	14.00	0.7000	061332
	LAYER I		001321	0 6 7 3 0 2				
	4 0.7152	0.6655						
143-14	4 00/152	046655						
		T A11	ET STATI	C DDEcc	URES. PS			
DAKE MA		INL	EI SIAII	C PRESS	UKESI PS			
RAKE WA	6 1539.3	1674 2	1583.1	AL . C	1520.7	AL C.		
		1576.3	120341	N.G.	1520.7	N.G.		
RAKE BU		1206 0	1616 6	1206 1	1272 6			
	2 1376.9	1395.0	1416.5	1396.1	1373.5	N.G.		
TOP	00 1007 7	1400 8	AL C	1241 7	1104 0	1200 0	1262 2	1204 4
	10 1987.7	1890.8	N.G.	1241.7	1196.8	1308.9	1353.2	1394.4
	4 1424.7	1653.9	1661.0	1648.0				
SIDE	2 2 2 2 4 2	1705 2	1262 /	1074 5	1157 2	1204 7	1200 2	1017 1
	2 2124.3	1785.2	1363.4	1076.5	1157.3	1296.7	1309•2	1317.1
	6 1351.0	N.G.	1644.6	1707.3				
SPLITTE		N C	AL C	1442 8	1437.1	1541.3	1543.0	1486.5
_	4 2075.2	N.G.	N.G.	1462.8	143/61	194103	1943.0	1400.5
245	1476.6							
BOTTOM	0 11 6	1540 4	1556 0	1660 0	1551.2	1642 0	1678.0	1504 4
301-30		1300.0	1996.0	133000	199102	1949.0	19/010	139464
309	1594.1							
			DDECCUD	C 60555	I C I C N T C	60		
	*00	STATIC	PRESSUR	E CUEFF	ICIENTS.	CP		
NACELLE	•	0 125	N . C	N 6	N C	0 240	0 210	N 6
310-31				N.G.	N.G.	-0.348	-0.310	N.G.
318-32		-0.159	-0.066					
NACELLE						0.5.1		
321-32		0.136	0.023	-0.073	-0.136	-0.211	-0.187	N.G.
329	-0.291							
CANOPY		0 005	A1 6	۸, ۵	0 005			
330-33			N.G.	N.G.	-0.095			
	CENTER LI		-0 F70	-0 07 <i>E</i>	-0 404	-0 (01	-0.044	0 110
		-00113	-0.5/8	-0.9/3	-0.604	-0.491	-0.000	0.152
CANOPY								
343-34	4 -0.038	0.174						

# INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 4 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA -0.12	M0 0•800	M/M*	LP 1•99	RP	BP 00 OPE	
NR	PTC				K	L	WC	M/MO
		2 1530	_	_		1.82	_	-
0.012	1000	2 1330	•0 177	107	20.00	1002	1012	00133
		TOTA	ו מפרכנוו	DE DATI	nc. DT/D	T ()		
TALLET O	APE	IOTA	L PRESSU	KE KAIT	OS. PT/P	10		
INLET R	8 U.9024	0.0474	0 9122	0.7860	0.8435	0.9397	0.9564	N.G.
			0.8133	0.7850		0.9199		0.7912
	.6 0.8286 !4 U.8363		0.8408 0.9577	0.9404 N.G.	0•9654 0•8542	0.8061	0.8369	0.9127
		N.G.	0.8710		0.8577	0.6986	0.0309	069121
			0.8710	0.0421	0.6511	0.0900		
	LAYER I		0 (500	N 6	0 // 25	A1 C	0 (504	0 6567
131-13			0.6588	N.G.	0.6635	N.G.	0.6594	0.6564
	2 0.6531	0.7155	0.7112	0.6498				
	Y LAYER							
143-14	4 0.6619	0.6549						
		L						
<b>-</b>		INL	ET STATI	C PRESS	JRES. PS			
RAKE WA		1647 0	15.40.0					
	6 1519.8	1547.2	1543.0	N.G.	1513.3	N.G.		
RAKE BU								
	2 1413.4	1425.5	1452.0	1448.7	1432.8	N.G.		
TOP								
	0 1978.9	1841.4	N.G.	1127.3	968•4	1092.3	1220.2	1295.6
_	4 1419.0	1574.6	1588.4	1594.6				
SIDE								
	2 2078.9	1523.2	1069.7	856.8	944.4	1264.0	1194.0	1236.6
233-23		N.G.	1554.5	1607•3				
SPLITTE								
237-24	4 1738.3	N.G.	N.G.	1463.3	1453.7	1504.6	1511.1	1481.1
245	1478.0							
BOTTOM								
301-30		1531.7	1458.6	1471.1	1467.5	1473.7	1505.1	1527.4
309	1536.1							
		STATIC	PRESSUR	E COLFF	ICIENTS.	CP		
NACELLE								
310-31	7 N.G.			N.G.	N.G.	-0.440	-0.334	N.G.
318-32	0 N.G.	-0.123	-0.044					
NACELLE	SIDE							
321-32	B N.G.	0.431	0.261	0.152	0.080	-0.025	-0.084	N.G.
329	-0.286							
CANOPY	SIDE							
330-33	4 N.G.	-0.388	N.G.	N.G.	-0.166			
CANOPY	CENTER LI	NE						
335-34	2 0.549	-0.222	-0.673	-0.987	-0.441	-0.424	-0.194	-0.014
CANOPY	SIDE							
	4 -0.130	-0.009						

## INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

- FT

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 5 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RF		
ALO	10.04	-0.13	0.800	0.593	1.50			
NR 0.854	PTC 1825		_	_	K 17.54	L 1.04	WC 1•44	M/M0 0•615
0.054	1025	•6 1601	• 3 164	1103	17.54	1.04	1 . 44	0.615
		TOTA	L PRESSU	IDE DATIO	OS. PT/P	TO		
INLET I	DAKE	1017	E PRESSE	NE NAIN	75 F 17 F	10		
	08 0.8948	0.8616	0.7955	0.7906	0.8381	0.9091	0.9330	N.G.
	6 0.8001	0.7887	0.8381	0.9119	0.9380	0.8964	0.8093	0.7882
	24 0.8323	0.9030	0.9280	N•G•	0.8183	0.7936	0.8276	0.8885
	0.9003	N•G•	0.8369	0.8202	0.8396	0.8734	010210	0.000
	RY LAYER I		0.0000	0.000.00	000370	000134		
131-13		0.6845	0.6508	N.G.	0.6528	N.G.	0.6481	0.6478
	2 0.6472	0.7161	0.7123	0.6488	0.00720	,,,,,,	000.01	3004.5
	RY LAYER (		04/125	000400				
	4 0.6574	0.6516						
143 1	74 040514	0.0010						
		INI	ET STATI	C PRESSI	JRES. PS			
RAKE WA	AL L	• • • •	er ovar.					
	6 1592.8	1609.7	1610.9	N.G.	1591.9	N.G.		
RAKE BL			• • • • • •	,,,,,,		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	2 1525.6	1536.9	1556.9	1551.8	1538.3	N.G.		
TOP								
	0 1954.2	1831.7	N.G.	1160.2	1084.0	1248.9	1333.6	1381.6
221-22		1616.8	1631.5	1640.2				
SIDE								
225-23	2 2025 9	1518.2	1129.7	992.2	1152.6	1265.3	1323.4	1367.2
233-23	6 1403.0	N.G.	1598.4	1634.3				
SPLITTE								
237-24	4 1688.2	N.G.	N.G.	1538.0	1536.3	1571.6	1582.1	1565.1
245	1566.0							
BOTTOM	-							
301-30	8 N.G.	1512.3	1488.0	1497.7	1504.6	1527.9	1560.9	1580.4
309	1596.0							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 N.G.	-0.272	N.G.	N.G.	N.G.	-0.496	-0.349	N.G.
318-32	0 N.G.	-0.120	-0.047					
NACELLE	SIDE							
321-32	8 N.G.	0.352	0.215	0.104	0.040	-0.051	-0.085	N.G.
329	-0.270							
CANOPY	SIDE							
330-33	4 N.G.	-0.389	N.G.	N.G.	-0.162			
	CENTER LI							
335-34	2 0.547	-0.224	-0.674	-0.857	-0.390	-0.422	-0.184	-0.038
CANOPY	-							
343-34	4 -0.159	-0.044						

## 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 6 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

RP BP ALPHA BETA MO M/M\* LP OPEN 0.799 0.445 1.00 1.01 10.04 -0.13 WC PSB M/MO NR PTC PSC K L 1.08 0.462 1660.9 1709.6 0.65 0.834 1782.0 11.84 TOTAL PRESSURE RATIOS. PT/PTO INLET RAKE 101-108 0.8634 0.8280 0.7921 0.7978 0.8291 0.8716 0.8854 N.G. 0.7927 109-116 0.7915 0.7949 0.8300 0.8764 0.8902 0.8429 0.7946 0.8719 0.8850 N.G. 0.7986 0.7931 0.8208 0.8619 117-124 0.8258 0.8089 0.8518 0.8132 0.8266 125-130 0.8665 N.G. BOUNDARY LAYER RAKE 131-138 N.G. 0.6699 0.6419 N.G. 0.6468 N.G. 0.6361 0.6383 0.7170 0.7132 0.6455 139-142 0.6394 BOUNDARY LAYER DUCT 143-144 0.6533 0.6500 INLET STATIC PRESSURES. PS RAKE WALL 201-206 1654.1 1662.2 1665.6 1661.7 N.G. N.G. RAKE BULLET 207-212 1610.9 1634.3 1630.9 1624.7 1618.8 N.G. 213-220 1908.7 1805.1 N.G. 1217.8 1209.1 1363.2 1417.2 1451.9 221-224 1421.7 1647.3 1663.9 1676.1 SIDE 225-232 1900.5 1520.5 1243.8 1177.2 1338.7 1270.1 1479.8 1438.6 233-236 1505.8 1641.6 1663.4 N.G. SPLITTER 237-244 1642.2 N.G. 1595.0 1599.0 1626.9 1642.5 N.G. 1638.2 245 1643.6 BOTTOM 1507.2 1561.7 1604.1 301-308 N.G. 1489.3 1506.9 1518.2 1626.7 309 1648.7 STATIC PRESSURE COEFFICIENTS. CP NACELLE TOP 310-317 N.G. -0.366 N.G. N.G. N.G. -0.551 -0.354 N.G. -0.120 -0.048 318-320 N.G. NACELLE SIDE 321-328 0.209 0.120 0.023 -0.025 -0.091 -0.093 N.G. N.G. -0.234 329 CANOPY SIDE 330-334 N.G. -0.384 N.G. N.G. -0.130 CANOPY CENTER LINE 335-342 0.549 -0.220 -0.712 -0.316 -0.423 -0.154 -0.669

READ TUBES HURIZONTALLY AND CONSECUTIVELY.

N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID. PAGE

CANOPY SIDE

343-344 -0.144

-0.077

## INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO 0.4799	M/M*	LP 1•00			
NR	PTC					L		
U.996		_		_	3.17			
••,,,	2120	• / 1/2/	•1 17		3011	1074	1000	0000
		TOTA	PRESSI	IRE RATIO	OS. PT/P	۲n		
INLET I	PAKE	1017	LINESS	INC NAIL	1 171	. •		
	08 0.9870	0-9914	0-9901	0.9697	0.9886	1.0010	1.0012	N.G.
	16 1.0000		0.9909		1.0008	1.0013		0.9937
	24 0.9925		1.0008	N•G•	0.9998	0.9952	0.9945	1,0004
	30 1.0008	• • • •	0.9999		0.5376	1.0001	007742	1,0004
	RY LAYER		0.,,,,	0.7776	0. 770	1.0001		
	38 NoGo		0.9007	N.G.	0.8421	NaGa	0.9572	0.9255
	2 0.8897		0.8410		000421	1100	007312	007233
	RY LAYER I		0.0410	0.0200				
	44 0.7850							
145-14	4 0 7 6 5 0	0.0090						
		1 441	ET STATI	C DDECCI	JRES. PS			
DAKE W	<b>.</b>	INL	EI SIAII	C PRESSU	DREST PS			
RAKE WA		1027 H	1044 0	A) C	1011 2	Al C		
	06 1923.4	1937.8	1944.0	N•G•	1911•3	N.G.		
RAKE BU		1070 0	1074	107/ 0	1070	N. C		
	12 1866.1	1870.0	1874.6	1874.0	1860.4	N.G.		
TOP	14. 1700 4	2105 0	N C	1010 6	1700 6	1005 0	1022 2	1047 6
	20 1709.4		N.G.		1799.5	1825.2	1833.3	1847.5
	24 1861.9	1964.4	1967.2	1960•4				
SIDE		2002 4	1706 3	1704 2	1762 /	1774 0	1777 7	1004
	2 2088.9	2002.8		1706.3	1/53.4	1//0.9	1777.7	1804.5
	36 1820.4	N.G.	1957.6	1985.2				
SPLITTE		<b>N</b> . (	A) (	1002 2	1012 0	1021 0	1020 0	1004 0
	4 2127.8	N.G.	N.G.	1933.3	1913.0	1931.9	1920.9	1896.3
	1889.8							
BOTTOM	\ O \ \ A \ \ =	1002 7	107/ 0	1022 0	1070 1	1000	1000	10/0
		1882.7	18/6.3	18//-3	1878.1	1889•1	1928 • 2	1942.1
309	1943.8							
						- 5		
		STATIC	PRESSUR	E COEFFI	CIENTS.	Ch		
NACELLE		0 (10				0 . 0 .	0.0.0	
310-31				N•G•	N.G.	-0.425	-0.343	N.G.
	N.G.	-0.190	-0.101					
NACELLE								
321-32		0.122	0.057	-0.050	-0.107	-0.188	-0.173	N.G.
329	-0.283							
CANOPY			AT 155					
330-33		-	N.G.	N.G.	-0.014			
	CENTER L							
	2 0.636	-0.047	-0.502	-0.879	-1.068	-0.470	0.133	0.427
CANOPY	_							
343-34	4 0.119	0.415						

## 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 8 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

P1 8	BOOM	JAKT LATE	R DUCT C	PEN BO	IN ENGINE	3 UPERA	1145	
٨	LPHA	BETA	МО	M/M*	LP	RF	> вр	)
	0.01							
NR			PS		K	L		M/MO
		9 1732						
					_			
		TOTA	L PRESSU	RE RATIO	S. PT/P	TO		
INLET RA	KE							
101-108	0.9561	0.9727	0.9676	0.9422	0.9854	1.0010	1.0013	N.G.
109-116	1.0001	0.9791	0.9895		1.0013	1.0019	1.0005	0.9944
117-124	0.9915	1.0004	1.0011	N.G.	1.0000	0.9951	0.9940	1.0000
125-130	0.9996	N.G.	1.0000	0.9976	0.9971	1.0000		
BOUNDARY	LAYER F							
131-138				N.G.	0.8512	N.G.	0.9706	0.9429
		0.8791	0.8485	0.8272				
BOUNDARY								
143-144	0.7769	0.6875						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WAL	_	1740 0	17/2 2		1700 (			
201-206		1749.8	1762.2	N.G.	1702.6	N.G.		
RAKE BUL	_	1617 1	1626 1	1410 0	1401 2	<b>N</b> C		
207-212 TOP	1003.0	1617.1	1626.1	1618.8	1601.3	N.G.		
213-220	1944.6	1960.4	N.G.	1447.1	1448.8	1525.3	1559 • 2	1591 • 1
221-224		1807.9		1797.8	144000	102003	133962	199101
SIDE	1017.0	100/69	1010.0	1/9/00				
225-232	2140.3	1744.7	1353.1	1201.2	1311.6	1450.8	1473.3	1504.1
233-236		N.G.	1798.3	1843.5	13110		211303	150401
SPLITTER		11000	1.,,,,,	104363				
237-244		N.G.	N.G.	1719.8	1689.1	1738.5	1722.7	1675.5
245	1666.2							
BOTTOM								
301-308	N.G.	1592.4	1618.5	1638.2	1644.1	1673.7	1744.3	1765.3
309	1767.9							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-317	N • G •	-0.106	N.G.	N.G.	N.G.	-0.324	-0.322	N.G.
318-320	N.G.	-0.188	-0.100					
NACELLE :								
321-328		0.339	0.203	0.089	0.012	-0.108	-0.136	N.G.
329	-0.269							
CANOPY S			A	/s. = -				
		-0.169	N.G.	N.G.	-0 • 054			
CANOPY CI			0 - 5 -					
		-0.048	-0.504	-0.886	-1.090	-0.524	0.065	0.317
CANOPY S	IDF	0 222						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.

N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID. PAGE

343-344 0.062 0.333

1/5 SCALE MODEL

## RYAN VZ-11 AIRCRAFT

### CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 9 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	мо	M/M*		RP		
	-0.01	-4.10			1.99			
NR O OO4	PTC	_			K	L	WC	M/MO
0.986	2107	•9 1567	• / 151	4 • 4	9.77	3.60	2.20	0.938
		TOTA	DOFCCI	05 0471	0.6 0.7.40	•		
TALLET		IOTA	L PRESSU	RE RAIL	OS. PT/P	10		
INLET		0 = 0 = 0	. 04.50	0.0140	0.0067	1 0007	1 0007	14.6.
	0 0 9 3 3 1		0.9458	0.9140	0.9867	1.0007	1.0007	
	6 1.0001		0.9898	1.0013	1.0011	1.0000	1.0004	0.9943
	24 0.9920		1.0013	N.G.	1.0004	0.9961	0.9946	1.0006
		N.G.	1.0001	0.9983	0.9980	1.0000		
	Y LAYER F		0.000		0.05.0-		0 07(0	0.0514
131-13		_		N.G.	0.8532	N.G.	0.9768	0.9516
	2 0.9129		0.8510	0.8262				
	Y LAYER (							
143-14	4 Û•7684	0.6858						
		INL	ET STATI	C PRESSU	JRES PS			
RAKE WA			• <del>-</del>					
	6 1548.7	1589.1	1604.4	N.G.	1528•4	N.G.		
RAKE BL	-							
	2 1379.0	1398.5	1409.5	1394.6	1366.9	$N \bullet G \bullet$		
TOP				=_ =				
	0 2029.9	1843.8	N.G.	1158.0	1052.9	1235.6	1326 • 8	1383.8
	4 1429.0	1681.2	1682.3	1663.4				
SIDE								
	2 2136.0	1620.5		830.7	864.6	1039.9	1225•2	1297•2
	6 1350.0	N.G.	1667.6	1719.8				
SPLITTE								
237-24	4 2127.8	N.G.	N.G.	1543.1	1500.2	1582.1	1564.0	1497.9
245	1488.3							
BOTTOM								
301-30	8 N.G.	1327.9	1393.4	1428.4	1443.0	1495.9	1603.1	1623.6
309	1624.1							
		STATIC	PRESSUR	L COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 N.G.	0.020	N.G.	N.G.	N.G.	-0.281	-0.310	N.G.
	O N.G.							
NACELLE								
		0.428	0.268	0.142	0.057	-0.073	-0.121	N.G.
329								
CANOPY								
330-33	-	-0.169	N.G.	N.G.	-0.072			
	CENTER LI							
		-0.051	-0.506	-0.888	-1.096	-0.540	0.033	0.249
CANOPY		• •						
2/		0 247						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

343-344 0.034 0.287

# 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 10 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA 0.00	BETA		M/M* 0.897	LP 1•99	RP 2•0	_	
NR	PTC		PS		K	L	WC	M/MO
		7 1571				3.92		
		====				<b>-</b> -		
		TOTA	L PRESSU	RE RATIO	DS. PT/P	ro		
INLET F		(, 0000	0.0750	0.0040	0.0004		1 ()(()	N . C
	0.9603		0.9750	0.9048		1.0004	· <del>-</del>	N.G.
		0.9477		1.0004		0.9958	0.9817 0.9867	0.9727 0.9972
	24 0.9860		_	N•G•		0.9791 0.9934	0 9 9 0 0 7	0.9912
	0.9951		0.9859	0.9831	0.9874	009934		
	RY LAYER I		0.9264	A) C	0.8500	AL C.	0.9944	0.9840
	2 0.9447		0.8559		0.000	N • G •	087744	0.7540
_	RY LAYER I	-	0.0000	0.0252				
-	4 0.7678							
143-14	4 08/0/0	0.0004						
		INI	FT STATE	C PRESSU	JRES. PS			
RAKE WA	(LL		er orari	C	INCOV 10			
	6 1549.4	1591.2	1613.5	N.G.	1531.1	N.G.		
RAKE BL			-					
207-21	2 1389.6	1409.7	1422.7	1405.7	1379.5	N.G.		
TOP								
213-22	0 1953.8	1930.6	N.G.	1428.6	1423.5	1498.6	1509.9	1525.7
221-22	4 1542.9	1688.9	1691.2	1668.3				
SIDE								
225-23	2 1822.5			1598.6	1566.7	1528.0	1489.3	1502.0
233-23	-	N.G.	1683.8	1751.9				
SPLITTE					_			
	4 2118.4	N.G.	N.G.	1451.7	1443.3	1561.9	1560.7	1505 • 1
245	1494.9							
BOTTOM	0 4 6	1704 6	1707 0	1404 6	1401 0	1425 7	1424 0	1/2/ 7
		1709.6	1707.8	1040.0	1681.9	105201	1634.9	1636.7
309	1635 • 4							
		CTATIC	DDECCHD	- COEEE1	CIENTS.	CP		
NACELLE	TOP	SIMITE	PRESSOR	COLFFI	CIENTS	CF		
310-31		-0.126	N.G.	N.G.	N.G.	-0.339	-0.332	N.G.
318-32			-0.113					
NACELLE								
321-32		-0.676	-0.664	-0.573	-0.570	-0.589	-0.336	N.G.
329	-0.309							
CANOPY								
330-33	4 NoGo	-0.387	N.G.	N.G.	-0.097			
	CENTER LI							
	2 0.632	-0.044	-0.503	-0.895	-1.118	-0.549	0.027	0.241
CANOPY	_							
343-34	4 0.011	0.219						

# INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 11 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA				LP			
	0.00	3.88	0.799	0.796	1.50		1 OPE	14
NR		PSC			K	L		
0.987	2108	•4 1732	1.4 170	)6 • 8	6.56	2.87	1.94	0.827
		TOTA	L PRESSU	JRE RATIO	US. PT/P	TO		
INLET F	RAKE							
101-10	08 0.9817	0.9958	0.9786	ܕ9358	0.9841	1.0005		N.G.
109-11	16 0.9820	0.9633	0.9861	1.0006	0.9994	0.9959	0.9825	0.9747
117-12	4 0.9862	0.9989	0.9983	N.G.	0.9842	0.9791	0.9870	0.9970
125-13	30 0.9953	N.G.	0.9865	0.9835	0.9881	0.9938		
BOUNDAR	RY LAYER I	RAKE						
131-13	8 N.G.	0.9579	0.9193	N.G.	0.8490	N.G.	0.9936	0.9792
	2 0.9374							
	RY LAYER I		- •					
	4 0.7784							
1,13		•						
		TAIL	FT CTATI	C DBFCCI	JRES. PS			
RAKE WA	(1 1 <u>-</u>	INL	EI SIMII	C PRESSI	JKL31 F3			
	6 1717.1	1747.1	1762.4	N.G.	1702.5	N.G.		
RAKE BU		1/4/61	170207	14.00	170203	14.00		
	2 1611.5	1422 1	1633.∪	1627.4	1609.0	AL C		
	12 101103	1623.1	1033•0	102/64	1609.0	N.G.		
TOP		1022 1	N C	1477 1	1670.0	1701.9	1702.7	1 <b>71</b> 1 U
	20 1818.2			1677.1	10/0.0	1701.9	1/02.7	1711.8
	4 1719.4	1810.0	1811.5	1790.8				
SIDE		5	1000				. 750 0	
	2 1653.9	<del>-</del>	1989.3	1833.2	1/8/•5	1755.3	1722.2	1707.5
	6 1702.5	N.G.	1805.0	1854.1				
SPLITTE				n				
	4 2118.6	N.G.	N.G.	1621.7	1624•3	1711.5	1713.8	1675.6
245	1668.3							
BOTTOM								
301-30	18 N.G.	1863.5	1846.7	1034.6	1821.6	1777.1	1772.0	1772.2
309	1771.0							
		STATIC	PRESSUR	E COEFFI	CIENTS	CP		
NACELLE	TOP							
310-31	7 N.G.	-0.268	N.G.	N.G.	N.G.	-0.385	-0.341	N. 6.
	O N.G.							
NACELLE								
	8 N.G.	-0.913	-0.895	-0.843	-0.767	-0.683	-0.354	N.G.
-	-0.308						~ <del>~ ~ ~ ~</del>	
CANOPY	•							
	4 N.G.	=0.303	N.G.	NaGa	=0.078			
	CENTER LI		1100	1100	V • V 1 U			
	2 0.633		-0.502	-0.Hu2	-1-114	-0.526	0-061	0.309
		-0 0 0 72	0.002	-0,073	10110	0.720	0.001	0 6 3 0 9
CANOPY		0 27/						
J4J-54	4 0.042	00214						

#### INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT 1/5 SCALE MODEL CTOL FLIGHT REGIME

BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, RUN BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE PT

PT	12	BOUN	DARY LAYE	R DUCT	OPEN. BO.	TH ENGINE	S OPERAT	IVE	
	Δ	LPHA	BETA	МО	M/M*	LP	RF	э вн	
					0.573	1.00		OPE	N
N	IR		PSC			K	L	WC	M/MO
		2104	.3 1931	.3 19	15.2	3.49	1.58	1.39	0.595
			TOTA	L PRESS	URE RATIO	05. PT/P	TO		
	TRA								
						0.9847			N.G.
	-	-	0.9756						
					N•G•			0.7753	0.9853
			N•G•	0.9771	0.9757	0.9810	0.9877		
		LAYER							
					N.G.	0.8435	N. G.	0.9857	0.9576
139	-142	0.9142	0.8838	0.8494	0.8318				
BOUN	DARY	LAYER	DUCT						
143	-144	0.7830	0.6875						
			TAIL	CT CTAT	TC DUECCI	JRES. PS			
DAVE	WAL		INL	EL SIMI	IC PRESSU	TREST PS			
		1925.0	1940.2	1044.7	N.G.	1012.4	N•G•		
	BUL		194002	194001	N.G.	171504	N.O.		
		1867.9	1872.2	1077 0	18/5.3	1840.0	N. C.		
TOP	-212	100/09	1012.2	101100	10.743	1860.9	N.G.		
	-220	1661 2	2114.7	AL C	1026 8	1915.9	1022 0	1917.0	1917.3
		1918.2		N.G. 1955.4		191009	1923.0	191760	141102
		1910.2	195465	190004	194962				
SIDE		1215 1	2094.1	2104.0	2022 7	1992.2	1045 4	1042 2	1020 1
		1315.1	- · · · -	·		177202	190300	174363	1928 • 1
		1920.7	N.G.	1950.4	1975.2				
	TTER	2111 0	A1 - C	<b>A</b> 1. C	1422 2	10/1-7	1400 0	1007 0	1070 0
		2111.9	N.G.	N.G.	1832.3	1841.7	1893.0	1897.3	1879.8
		1876 • 1							
BOTT		N. 6	2010 /	1007	2000 0	1000 0		10.5	
			2010.4	1997.6	1988.9	1982.8	1954.1	1945.2	1944.9
309		1944.6							
			STATIC	PRESSU	KE COEFFI	CIENTS	CP		
NACE	LLE	TOP	0171.20			CICITO	•		
		N.G.	-1.123	N.G.	N.G.	N.G.	-0.457	-0.365	N.G.
				-0.115					
	LLE :			00112					
		N.G.	-1-126	-1.083	-1.132	-0.979	-0.710	-0-407	N.G.
329		-0.314				0 0 7 . 7	00,10	00401	.4.0
	PY S	<del>-</del>							
_	_		-0.391	N.G.	N•G•	-0.041			
		ENTER LI							
			-0.038	-0.49B	-0.889	-1.105	-0.491	0-126	0.423
6440	DV -								23

READ TUBES HURIZONTALLY AND CONSECUTIVELY. N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

0.366

CANOPY SIDE

343-344 0.098

## CTOL FLIGHT REGIME

RUN BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER. PT 13 BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA -0.02	BETA -0.12	M0 0•844	M/M* 0.569			_	
NR		PSC			K	L	WC	M/MO
0.907	1937			_			1.38	
								••••
		TOTA	L PRESSU	JRE RATIO	DS. PT/P	TO		
INLET A	RAKE							
101-10	J8 U.9U16	0.8970	0.8679	0.8631	0.9001	0.9448	0.9247	N.G.
109-1	16 0.8738	0.8618	0.9034	0.9469	0.9400	0.9319	0.8826	0.8620
117-12	24 0.9005	0.9442	0.9477	N.G.	0.8933	0.8699	0.3999	0.9387
125-13	30 0.9468	N.G.	0.9098	0.8950	0.9120	0.9343		
BOUNDAR	RY LAYER	RAKE						
	38 N.G.		0.6057		0.6136	N.G.	0.5937	0.5970
139-14	2 0.5997	0.6025	0.6076	0.6113				
	RY LAYER							
143-14	4 U.6279	0.6220						
		_						
12		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA			. 35 3 . 0	-				
	6 1738.5	1756.0	1757.9	N.G.	1743.3	N.G.		
RAKE BU						h		
	12 1678.6	1688.8	1698.6	1697.5	1684.2	N.G.		
TOP	10 2062	17/2-1	<b>1</b> 1 6	1100 2				• • • • •
	20 2053.6		N.G.	1108.2	1111.1	1322.5	1416.9	1478.4
	24 1526.1	1743.3	1764.1	1773.7				
SIDE	10 1047 7	1724.6	1272 7	1198.3	1354.2	1446 2	1480.0	1611 7
	12 1987.2 16 1546.7	N.G.		1776.3	1354 • 2	1440 • 2	140049	1511.7
233-23		14 • 0 •	1741.6	111003				
SPLITTE	K 4 1888•4	AL. G	N.G.	1672•7	1667.9	1710 4	1729.7	1700 7
		N.G.	14.0.	10/20/	100/09	1/1004	112901	1709.7
245 POTTOM	1711.6							
BOTTOM	18 N.G.	1508.3	1555.3	1583.7	1604.2	1665.6	1716.7	1726.2
309	1746.9	170003	122263	100001	1004.2	1007.0	1/100/	173562
309	174069							
		STATIC	PPFSSIIP	E COFFEI	CIENTS.	CP		
NACELLE	TOP	317110	r KESSOK	COLIT	CILITIO	Cr		
310-31		0.048	N.G.	N.G.	N.G.	-0.377	-0.351	N.G.
	O N.G.						******	
NACELLE								
	8 N•G•	-0.154	-0.274	-0.316	-0.360	-0.407	-0.227	N.G.
329	-0.303	J ·	· ·	3 3 3 4 3		- · · · ·		
CANOPY								
	4 N.G.	-0.249	N.G.	N.G.	-0.208			
	CENTER L				_			
	2 0.670		-0.448	-0.828	-0.363	-0.327	-0.214	-0.087
CANOPY	SIDE							
343-34	4 -0.197	-0.128						

## 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY • 24E OVAL INLET • LONG SPLITTER • BOUNDARY LAYER DUCT OPEN • BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RP	BP	
	-0.02	-0.12	0.849	0.736	1.50	1.51	OPEN	٧
NR		PSC		-	K	L	WC	M/MO
0.913	1950	•6 1603	•5 160	8.00	15.36	1.88	1.79	0.752
		TOTA	ı DDECCI	IDE DATE	OC. DT/D1	. 0		
INLET I	DAVE	IOIA	L PRESSU	KE KAIL	05. PT/P1	0		
		0.0010	0.8650	0.4226	0.9021	0.9732	0.9240	N. G.
					0.9571		0.9005	
					0.9097	-	0.8991	0.9629
		N•G•		0.8935		0.9542		0.027
	RY LAYER		04,22,	0.00000	007114	007542		
		0.7153	0.6225	NaGa	0.6245	N.G.	0.6245	0.6229
		0.6229				.,,,,,		00000
	RY LAYER			***************************************				
	44 0.6360	-						
		INL	ET STATI	C PRESS	URES. PS			
RAKE W	_			•				
	06 1592.1	1618.6	1620.0	N.G.	1583.3	N.G.		
RAKE BU								
	12 1470.7	1487.3	1513.3	1509.3	1487.3	N.G.		
TOP	00.000		A1		0.7.7			
	20 2081.1		N.G.			1096.0	1259.7	1340.5
	24 1387.1	1640.6	1657.0	1659.0				
SIDE	<b>33</b> 2002 1	1722 2	1204 7	007 0	1050.1	1261 1	1200.1	1220 4
	32 2083.1		1294.7		102841	1241.1	129001	1328.6
SPLITT	36 1369.0	N.G.	103401	1686.1				
	44 1956.6	N.G.	N.G.	1502.6	1487.6	1569.5	1578.8	1540.1
	1535.9	1400	11.00	1702.0	140780	130763	151000	134011
BOTTOM								
		1522.8	1535.9	1546.4	1549.9	1561.5	1589.8	1606.7
	1613.4							
		STATIC	PRESSUR	E COEFF	ICIENTS.	CP		
NACELLE	TOP							
310-31	17 N.G.	6.141	N.G.	N.G.	N.G.	-0.278	-0.315	N.G.
318-32	20 N.G.	-0.177	-0.085					
NACELLE								
		0.008	-0.112	-0.193	-0.251	-0.323	-0.205	N.G.
-	-0.301							
CANOPY			A	A				
		-0.239	N.G.	N.G.	-0.234			
-	CENTER L			0.010	0 107	0 001	0 0 0	
	2 0.676	0.001	-0.436	-0.819	-0.437	-0.394	-0.248	-0.051
CANOPY		-0 045						
545-34	4 -0.231	-0.045						

## INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 15 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	МО	M/M*	LP	RF		
	-0.02	-0.12	0.848	0.825	2.00	2.0	OPE	N
NR	PTC	PSC	PS	8	K	L	WC	M/MO
0.910	1945	4 1463	•5 144	1.4	18.42	3 • Q8	2.00	0.843
		TOTA	L PRESSU	RE RATI	US. PT/P	TO		
INLET F	RAKE							
-	8 0.8643	0.8540	0.6622	0.8108	0.8920	0.9779	0.8886	N.G.
	6 0.9182	0.8164	0.8904	0.9777	0.9372	0.9287		0.8280
	4 0.8874	0.9732		N.G.	0.9327	0.8543	0.8943	0.9680
	U 0.9785	-	0.9407		0.9223			
	RY LAYER F							
131-13			0.6301	N.G.	0.6292	N.G.	0.6387	0.6337
	2 0.6307	0.6284	0.6272	0.6291				
	Y LAYER							
	4 0.6398	0.6223						
		***************************************						
		TNI	ET STATE	C PRESSI	JRES. PS			
RAKE WA	AL I	1146	LI SIAIL		OKEOV 15			
_	6 1447.8	1484.5	1490.7	N.G.	1430.8	N.G.		
RAKE BL		140463	147001		143000			
	2 1277.8	1297.6	1329.5	1317.3	1289.1	N.G.		
TOP	2 12/100	127760	132703	131/63	120761	14.0.		
	0 2091.5	1688.6	N.G.	967.2	770 • 1	855.4	1019.5	1169.4
	4 1233.2	1528.3	1546.9	1549.4	77061	0)),4	101767	110764
	4 125562	172003	134017	134764				
SIDE	2 2102 6	1714 0	1251.0	441. 2	830.6	941.0	1078.2	1124
	2 2103.4	1718.0		884.2	0.5000	941.0	10/0.2	1134 • 4
233-23		$N \bullet G \bullet$	1530.8	1592.1				
SPLITTE		•• /-	<b>6</b> ) (	1242 7	1216 /	1421 1	1420 0	1007 (
237-24		N.G.	N.G.	1342.7	1315.4	1431.1	1439.9	1387.6
245	1384.0							
BOTTOM		7	116		1460 6	1 ( 20 7	11166	1.07.
		146. • /	1457.9	1459.9	1452.5	1430.7	1465.5	1487.8
309	1490.8							
		STATIC	PRESSUR	E COEFF	ICIENTS.	Cb		
NACELLE								
				N.G.	N.G.	-0.244	-0.306	N.G.
318-32	0 N.G.	-0 <sub>•</sub> 175	-0.085					
NACELLE	SIDE							
321-32	8 N.G.	0.075	-0.050	-0.140	-0.204	-0.290	-0.206	N.G.
329	-0.310							
CANOPY	SIDE							
330-33	4 N.G.	-0.241	N.G.	N.G.	-0.250			
CANOPY	CENTER LI	NE						
335-34	2 0.075	-0.002	-0.439	-0.021	-0.490	-0.430	-0.273	-0.044
CANOPY	SIDE							
343-34	4 -0.254	-0.024						

# INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT

1/5 SCALE MODEL

CTOL FLIGHT REGIME

RUN	4	BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER,
PT	16	BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA	BETA =0.12		M/M*	LP 2•00	RP	BP OPEN	u.
NR	PTC			6B	K	L	WC .	M/M0
					13.30	3.46		
			• • • • • • • • • • • • • • • • • • • •	- • •				
		ATOTA	L PRESSU	RE RATI	OS. PT/P	ro		
INLET R								. =
			0.9372			-	0.9449	
			0.9522				0.9680	0.8908
			0.9917				0.9577	0.9898
_	0 0.9910		0.9774	0.9549	0.9721	0.9877		
	Y LAYER I						. 7	
131-13		0.6789				N • G •	0.7403	0.7219
			0.6928	0.6936				
_	Y LAYER I							
143-14	4 0.6839	0.6319						
		INL	ET STATI	C PRESS	URES. PS			
RAKE WA								
		1542.1	1552.3	N.G.	1481.7	N.G.		
RAKE BU								
	2 1324.7	1344.7	1362.5	1347.5	1317.9	N.G.		
TOP								
	0 2100.3		N.G.	1011.3	906.0	1098.2	1274.1	1335.4
	4 1379.5	1618.9	1627.6	1611.5				
SIDE								
	2 2066.4		1429.4	1070.8	1103.6	1211.2	1204.4	1273.3
	6 1311.7	N.G.	1617.5	1685.8				
SPLITTE					1070 0	15000		
	4 2100.3	N.G.	N.G.	1409.7	1378.3	1502.8	1505.7	1445.5
245	1437.3							
BOTTOM		3504 7	1502 0	1672 7	15/0/	1601 2	1554 0	1015 5
		1594.7	1285.4	15/2.7	1560.4	1521.5	1554.0	120202
309	1566.6							
		CTATIC	DDECCUD	L COLEE	ICIENTS.	CP		
NACELLE	TOP	SIAIIC	PRESSUR	E COLFF.	CIENTS	CF		
310-31		0.266	N.G.	Nacia	N.G.	-0.164	-0.272	N.G.
318-32				,,,,,,	1100	00104	00212	1100
NACELLE		-00117	-00071					
321-32		-0.121	-0.192	-0.263	-0.334	-0.450	-0.299	N.G.
329	-0.345	0.121	00172	01203	00334	00430	00277	
CANOPY								
330-33		-0.170	N.G.	N.G.	-0.177			
	CENTER LI	INE						
335-34	2 0.720	0.091	-0.346	-0.726	-0.913	-0.435	-0.196	0.111
CANOPY	SIDE							
343-34	4 -0.169	0.132						

## INLET PRESSURE SURVEY

1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

## CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 17 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

					LP			
ND					1.50			
NR () 04.2		PSC	_		K	L	WC	M/MO
0.962	2056	• / 1651	•4 162	23 • 1	11.11	2.61	1.95	0.823
		TOT 4			0.6 07.40	• •		
****	2.4.4	IUIA	L PRESSU	IKE KATI	OS. PT/P	10		
INLET		4. 6.4.00	0.043	0 0071	(. () ( () )	0.0000	0 0477	N. C
	08 0.9233				0.9601	0.9932	0.9877	
	16 0.9618				0.9940	0.9911	0.9667	0.9035
	24 0.9585		0.9927			0.9236	0.9621	0.9879
	30 0.9902		0.9751	0.9570	0.9727	0.9867		
	RY LAYER F							
	38 N.G.		0.7160			N.G.	0.7478	0.7313
139-14	42 0.7193	0.7131	0.7081	0.7076				
BOUNDAR	RY LAYER (	DUCT						
143-14	4 0.6909	0.6358						
		INL	ET STATI	C PRESS	URES. PS			
RAKE WA	_			•		_		
	1638.4	1668.0	1676.5	N.G.	1622.8	N.G.		
RAKE BU								
	12 1506.5	1520.3	1537.0	1530.2	1507.4	N.G.		
TOP								
	20 2070.1		N.G.		1233.2	1405.7	1443.0	1484.5
221-22	24 1517.0	1724.8	1731.3	1718.8				
SIDE								
225-23	32 2030.6	1923.0	1575.1	1333.1	1397.0	1433.9	1429 • 1	1456.3
233-23	6 1480.0	N.G.	1718.0	1773.6				
SPLITTE	R							
237-24	4 2096.6	N.G.	N.G.	1561.6	1541.2	1631.3	1631.6	1586.4
245	1577.9							
BOTTOM								
	B NaGa	1700.1	1694.2	1689.6	1681.7	1655.1	1671.2	1679.1
309	1680.1							
507	100 / 1							
		STATIC	PRESSUR	E COEFF	ICIENTS.	CP		
NACELLE	TOP							
310-31		0.177	NaGa	NaGa	N.G.	-0.200	-0.285	N.G.
318-32			-0.094					
NACELLE		W 102	•••					
321-32		-U • 238	-0.288	-0.4338	-0.402	-0.495	-0.309	N.G.
321-32	-0.343	0 . 2 . 3 0	01200		0 4 4 0 2	V <del>-                                   </del>		.,,,,,,
CANOPY	·							
330-33		-0.175	N.G.	N•G•	-0.150			
	CENTER LI			14404	0 1 1 7 0			
	2 0.716		-0.352	-0.722	-0.907	-0.425	-0.147	0.159
CANOPY		0,000	V • J J J	UU. 72		V 4 4 E J	••••	
	4 -0.116	0.166						
フサフーラリ	-00110	0.0 100						

#### INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT 1/5 SCALE MODEL CTOL FLIGHT REGIME

BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, RUN BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE 18 PT

M/M\* LP RP BP MO ALPHA BETA 0.851 0.616 1.00 1.01 OPEN -4.00 -0.12 PSB K WC M/MU PTC PSC L NR 1845.9 1837.7 7.14 1.26 1.49 0.629 J. 962 2055.6

### TOTAL PRESSURE RATIOS. PT/PTO

INLET RAKE 101-108 0.9406 U.9540 U.9422 U.9202 0.9518 0.9859 0.9694 N.G. 109-116 0.9540 U.9235 0.9539 0.9868 0.9850 0.9864 0.9611 0.9277 117-124 0.9538 0.9849 U.9889 N.G. 0.9654 0.9378 0.9554 0.9824 0.9798 125-130 0.9876 0.9710 0.9569 0.9652 N.G. BOUNDARY LAYER RAKE 0.6838 0.6485 0.6554 N.G. 0.6454 0.6427 131-138 No Go N.G. 139-142 0.6434 0.6463 0.6505 0.6524 BOUNDARY LAYER DUCT 143-144 0.6465 0.6214

#### INLET STATIC PRESSURES. PS

N.G.

1831.8

N.G.

1857.8

RAKE BULLET 207-212 1769.7 1777.6 1784.9 1785.8 1771.4 N.G. TOP 1568.3 1614.9 213-220 2038.5 1838.3 N.G. 1373.2 1418.1 1655.9 221-224 1689.8 1874.4 1875.3 1865.1 SIDE 1679.9 1955.2 1520.1 225-232 1975.8 1598.0 1641.5 1644.3 1676.5 233-236 1697.1 N.G. 1864.2 1897.6 SPLITTER 237-244 2050.3 N.G. 1792.3 1782.4 1827.5 1829.0 1806 • 4 N.G. 245 1802.1 BOTTOM 301-308 1779.1 1801.9 1814.4 1832.6 1846.2 N.G. 1734.1 1853.3 309 1853.8

#### STATIC PRESSURE COEFFICIENTS. CP

N.G.

0.092 N.G. 310-317 N.G. N.G. -0.265 -0.308 N.G. 318-320 N.G. -U.187 -0.097 NACELLE SIDE 321-328 N.G. -0.367 -0.451 -0.463 -0.497 -0.531 -0.296 N.G. 329 -0.332 CANOPY SIDE -0.170 330-334 N.G. N.G. N.G. -0.135 CANOPY CENTER LINE 0.719 0.090 -0.347 -0.725 -0.475 -0.330 335-342 -0.105 0.059 CANOPY SIDE

343-344 -0.091 0.017

RAKE WALL

NACELLE TOP

201-206 1839.7

1854.4

## INLET PRESSURE SURVEY

### 1/5 SCALE MODEL

### RYAN VZ-11 AIRCRAFT

### CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PI 19 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

NR PTC PSC PSS PS		ALPHA		MO 0.452		LP			
TOTAL PRESSURE RATIOS   PT/PTO	NP		_						
TOTAL PRESSURE RATIOS. PT/PTO  INLET RAKE 101-108 0.8383 0.8203 0.7856 0.7869 0.6172 0.8601 0.8542 N.G. 109-116 0.7865 0.7844 0.8193 0.8659 0.8637 0.8395 0.7916 0.7832 117-124 0.8161 0.8652 0.8675 N.G. 0.7986 0.7869 0.8131 0.8552 125-130 0.8615 N.G. 0.8153 0.8061 0.88230 0.88485  EOUNDARY LAYER RAKE 131-138 N.G. 0.6448 0.5770 N.G. 0.8581 N.G. 0.8569 139-142 0.5733 0.5761 0.5802 0.5835  BOUNDARY LAYER DUCT 143-144 0.6141 0.6151   INLET STATIC PRESSURES. PS  RAKE WALL 201-206 1613-3 1622-3 1626-8 N.G. 1619-2 N.G. 213-220 2028-3 1670-3 N.G. 995.5 984-7 1150-8 1267-9 1339-1 221-224 1384-3 1596-0 1621-1 1635-5 SIDE 225-232 1831-2 1499-/ 1198-8 1081-6 1233-2 1324-7 1366-5 1395-5 233-236 1426-0 N.G. 1595-2 1625-9  EDITIOM 301-308 N.G. 1367-8 1400-8 1424-1 1441-2 1502-9 1561-7 1588-6 201TOM 301-308 N.G. 1367-8 1400-8 1424-1 1441-2 1502-9 1561-7 1588-6 309 1610-3  STATIC PRESSURE COEFFICIENTS. CP  NACFLLE TOP 312-327 N.G0.164 -0.072 NACELLE SIDE 321-328 N.G0.164 -0.072 NACELLE SIDE 330-3342 N.G0.285 N.G. N.G. N.G0.235 CANOPY SIDE 333-334 N.G0.285 N.G. N.G. N.G0.235 CANOPY SIDE									_
INLET RAKE	0.024	1701	1020	•0 107	1.00	10.23	0.75	1015	00405
INLET RAKE									
INLET RAKE			TOTA	I DDECCI	DE DATI	DT /D	TO		
101-108	TAUET	DAVL	1014	L PRESSU	WE KALL	731 F17F	10		
109-116   0.7865   0.7844   0.8193   0.8659   0.8637   0.8395   0.7916   0.7832   117-124   0.8161   0.8632   0.8675   0.8061   0.8230   0.8485   0.8131   0.8552   0.8071   0.8230   0.8485   0.8131   0.8552   0.8071   0.8230   0.8485   0.80813   0.8552   0.80813   0.82835   0.82835			(1.920)	11.7956	0.7860	0 - 172	0-8601	0.95/2	N.G.
117-124									
125-130									
BOUNDARY LAYER RAKE		-					•	0.0131	0.0002
131-138				0.0133	0.0001	0.0230	0.0403		
139-142				n <b>577</b> 0	AL C	0 6041	A. C	0 6474	0. 5700
BOUNDARY LAYER DUCT 143-144 0.6141 0.6151  INLET STATIC PRESSURES, PS  RAKE WALL 201-206 1613.5 1622.8 1626.8 N.G. 1619.2 N.G. RAKE BULLET 207-212 1568.3 1577.7 1586.7 1584.4 1574.8 N.G.  TOP 213-220 2028.3 1670.3 N.G. 995.5 984.7 1150.8 1267.9 1339.1 221-224 1384.3 1596.0 1621.1 1635.5  SIDE 225-232 1831.2 1499.7 1198.8 1081.6 1233.2 1324.7 1366.5 1395.5 233-236 1426.0 N.G. 1595.2 1625.9  SPLITTER 237-244 1637.2 N.G. N.G. 1529.7 1538.1 1577.9 1596.6 1589.8 245 1595.2  BOTTOM 301-308 N.G. 1367.8 1400.8 1424.1 1441.2 1502.9 1561.7 1588.6 309 1610.3  STATIC PRESSURE COEFFICIENTS, CP  NACELLE TOP 310-317 N.G0.005 N.G. N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072  NACELLE SIDE 321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 329 -0.245 CANOPY SIDE 330-334 N.G0.285 N.G. N.G0.235 CANOPY CENTER LINE 335-342 U.639 -0.008 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148 CANOPY SIDE						0.5841	N.G.	0.5076	0.5709
TINLET STATIC PRESSURES   PS				C • 5 8 U Z	0.5035				
RAKE WALL 201-206 1613.5 1622.8 1626.8 N.G. 1619.2 N.G. RAKE BULLET 207-212 1568.3 1577.7 1586.7 1584.4 1574.8 N.G. TOP 213-220 2028.3 1670.3 N.G. 995.5 984.7 1150.8 1267.9 1339.1 221-224 1384.3 1596.0 1621.1 1635.5 SIDE 225-232 1831.2 1499./ 1198.8 1081.6 1233.2 1324.7 1366.5 1395.5 233-236 1426.0 N.G. 1595.2 1625.9 SPLITTER 237-244 1637.2 N.G. N.G. 1595.2 1625.9 SPLITTER 237-244 1637.2 N.G. N.G. 1595.2 1625.9 EOTIOM 301-308 N.G. 1367.8 1400.8 1424.1 1441.2 1502.9 1561.7 1588.6 309 1610.3  STATIC PRESSURE COEFFICIENTS. CP NACELLE TOP 310-317 N.G0.005 N.G. N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072 NACELLE SIDE 321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 229 -0.245 CANOPY SIDE 330-334 N.G0.285 N.G. N.G0.235 CANOPY CENTER LINE 330-334 N.G0.285 N.G. N.G0.235 CANOPY CENTER LINE 330-334 N.G0.285 N.G. N.G0.235 CANOPY SIDE									
RAKE WALL 201-206 1613.5 1622.8 1626.8 N.G. 1619.2 N.G. RAKE BULLET 207-212 1568.3 1577.7 1586.7 1584.4 1574.8 N.G. TOP 213-220 2028.3 1670.3 N.G. 995.5 984.7 1150.8 1267.9 1339.1 221-224 1384.3 1596.0 1621.1 1635.5 SIDE 225-232 1831.2 1499.7 1198.8 1081.6 1233.2 1324.7 1366.5 1395.5 SPLITTER 237-244 1637.2 N.G. 1595.2 1625.9 BOTTOM 301-308 N.G. 1367.8 1400.8 1424.1 1441.2 1502.9 1561.7 1588.6 309 1610.3  STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.005 N.G. N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072 NACELLE SIDE 321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 229 -0.245 CANOPY SIDE 330-334 N.G0.285 N.G. N.G. N.G0.235 CANOPY SIDE 330-342 0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148 CANOPY SIDE	143-14	4 0.6141	0.6151						
RAKE WALL 201-206 1613.5 1622.8 1626.8 N.G. 1619.2 N.G. RAKE BULLET 207-212 1568.3 1577.7 1586.7 1584.4 1574.8 N.G. TOP 213-220 2028.3 1670.3 N.G. 995.5 984.7 1150.8 1267.9 1339.1 221-224 1384.3 1596.0 1621.1 1635.5 SIDE 225-232 1831.2 1499.7 1198.8 1081.6 1233.2 1324.7 1366.5 1395.5 SPLITTER 237-244 1637.2 N.G. 1595.2 1625.9 BOTTOM 301-308 N.G. 1367.8 1400.8 1424.1 1441.2 1502.9 1561.7 1588.6 309 1610.3  STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.005 N.G. N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072 NACELLE SIDE 321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 229 -0.245 CANOPY SIDE 330-334 N.G0.285 N.G. N.G. N.G0.235 CANOPY SIDE 330-342 0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148 CANOPY SIDE			7 4.4		6 00566	1056 06			
201-206 1613.5 1622.8 1626.8 N.G. 1619.2 N.G.  RAKE BULLET 207-212 1568.3 1577.7 1586.7 1584.4 1574.8 N.G.  TOP 213-220 2028.5 1670.3 N.G. 995.5 984.7 1150.8 1267.9 1339.1 221-224 1384.3 1596.0 1621.1 1635.5 SIDE 225-232 1831.2 1499.7 1198.8 1081.6 1233.2 1324.7 1366.5 1395.5 233-236 1426.6 N.G. 1595.2 1625.9 SPLITTER 237-244 1637.2 N.G. N.G. 1529.7 1538.1 1577.9 1596.6 1589.8 245 1595.2 20170M 301-308 N.G. 1367.8 1400.8 1424.1 1441.2 1502.9 1561.7 1588.6 309 1610.3 STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 31-317 N.G0.005 N.G. N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072 N.G. N.G0.201 -0.257 -0.155 N.G. 329 -0.245 CANOPY SIDE 330-342 N.G0.285 N.G. N.G. N.G0.235 CANOPY CENTER LINE 335-342 N.G0.285 N.G0.500 -0.819 -0.324 -0.300 -0.250 -0.148 CANOPY SIDE	5.45		INL	EI SIA!I	C PRESSI	JRES PS			
RAKE BULLET 207-212 1568-3 1577-7 1586-7 1584-4 1574-8 N-G- TOP 213-220 2028-3 1670-3 N-G- 995-5 984-7 1150-8 1267-9 1339-1 221-224 1384-3 1596-0 1621-1 1635-5 SIDE 225-232 1831-2 1499-/ 1198-8 1081-6 1233-2 1324-7 1366-5 1395-5 233-236 1426-6 N-G- 1595-2 1625-9 SPLITTER 237-244 1637-2 N-G- N-G- 1529-7 1538-1 1577-9 1596-6 1589-8 245 1595-2 BOTTOM 301-308 N-G- 1367-8 1400-8 1424-1 1441-2 1502-9 1561-7 1588-6 309 1610-3  STATIC PRESSURE COEFFICIENTS- CP  NACELLE TOP 31-317 N-G0-005 N-G- N-G- N-G- N-G0-458 -0-349 N-G- 318-320 N-G0-164 -0-072  NACELLE SIDE 321-328 N-G0-006 -0-108 -0-164 -0-201 -0-257 -0-155 N-G- 329 -0-245  CANOPY SIDE 330-342 0-0-39 -0-0-08 -0-500 -0-819 -0-324 -0-300 -0-250 -0-148  CANOPY SIDE 335-342 0-0-39 -0-0-008 -0-500 -0-819 -0-324 -0-300 -0-250 -0-148  CANOPY SIDE			1460		, N. 6	1410.0	N 6		
TOP  213-220 2028-3 1670-3 No.G. 995.5 984.7 1150.8 1267.9 1339.1 221-224 1384.3 1596.0 1621.1 1635.5 SIDE  225-232 1831.2 1499.7 1198.8 1081.6 1233.2 1324.7 1366.5 1395.5 23-236 1426.0 No.G. 1595.2 1625.9 SPLITTER  237-244 1637.2 No.G. No.G. 1595.2 1625.9 SPLITOM  301-308 No.G. 1367.8 1460.8 1424.1 1441.2 1502.9 1561.7 1588.6 309 1610.3 STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP  310-317 No.G0.005 No.G. No.G. No.G. No.G0.458 -0.349 No.G. 318-320 No.G0.164 -0.072 No.G0.164 -0.072 No.G0.257 -0.155 No.G. 329 -0.245 CANOPY SIDE  330-342 00.99 -0.008 -0.008 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148 CANOPY SIDE			1622.3	1626.8	N•G•	1619.2	N.G.		
TOP 213-220 2028.3 1670.3 N.G. 995.5 984.7 1150.8 1267.9 1339.1 221-224 1384.3 1596.0 1621.1 1635.5 SIDE 225-232 1831.2 1499./ 1198.8 1081.6 1233.2 1324.7 1366.5 1395.5 SPLITTER 237-244 1637.2 N.G. 1595.2 1625.9 SPLITTER 237-244 1637.2 N.G. N.G. 1529.7 1538.1 1577.9 1596.6 1589.8 245 1595.2 EOTTOM 301-308 N.G. 1367.8 1400.8 1424.1 1441.2 1502.9 1561.7 1588.6 309 1610.3  STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 31-317 N.G0.005 N.G. N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072  NACELLE SIDE 321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 329 -0.245 CANOPY SIDE 330-334 N.G0.285 N.G. N.G. N.G0.235 CANOPY CENTER LINE 335-342 0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148 CANOPY SIDE				54.07.3		1/3/ 0			
213-220 2028.3 1670.3 N.G. 995.5 984.7 1150.8 1267.9 1339.1 221-224 1384.3 1596.0 1621.1 1635.5 SIDE 225-232 1831.2 1499.7 1198.8 1081.6 1233.2 1324.7 1366.5 1395.5 233-236 1426.0 N.G. 1595.2 1625.9 SPLITTER 237-244 1637.2 N.G. N.G. 1595.2 245 1595.2 EOTTOM 301-308 N.G. 1367.8 1400.8 1424.1 1441.2 1502.9 1561.7 1588.6 309 1610.3 STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 312-317 N.G0.005 N.G. N.G. N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072 NACELLE SIDE 321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 329 -0.245 CANOPY SIDE 330-334 N.G0.285 N.G. N.G. N.G0.235 CANOPY CENTER LINE 335-342 0.639 -0.008 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148 CANOPY SIDE		12 1568.3	15//•/	1280 • 1	1584.4	15/4.8	N.G.		
221-224 1384.3 1596.0 1621.1 1635.5  SIDE 225-232 1831.2 1499.7 1198.8 1081.6 1233.2 1324.7 1366.5 1395.5  SPLITTER 237-244 1637.2 N.G. N.G. 1595.2 1625.9  EOTIOM 301-308 N.G. 1367.8 1460.8 1424.1 1441.2 1502.9 1561.7 1588.6 309 1610.3 STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 31-317 N.G0.005 N.G. N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072  NACELLE SIDE 321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 229 -0.245  CANOPY SIDE 330-334 N.G0.285 N.G. N.G0.235  CANOPY CENTER LINE 335-342 U.039 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148  CANOPY SIDE			1470.		001	001 7	1150 0	12/7 0	1020 1
SIDE						984.1	1150.8	1267.9	1339.1
225-232 1831.2 1499./ 1198.8 1081.6 1233.2 1324.7 1366.5 1395.5 233-236 1426.0 N.G. 1595.2 1625.9 SPLITTER 237-244 1637.2 N.G. N.G. 1529.7 1538.1 1577.9 1596.6 1589.8 245 1595.2 EOTIOM 301-308 N.G. 1367.8 1400.8 1424.1 1441.2 1502.9 1561.7 1588.6 309 1610.3 STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.005 N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072 NACELLE SIDE 321-328 N.G0.006 -0.108 -0.104 -0.201 -0.257 -0.155 N.G. 329 -0.245 CANOPY SIDE 330-334 N.G0.285 N.G. N.G0.235 CANOPY CENTER LINE 335-342 0.039 -0.068 -0.500 -0.500 -0.619 -0.324 -0.300 -0.250 -0.148 CANOPY SIDE		4 1384.3	1596.0	1621.1	1635.5				
233-236 1426.6 N.G. 1595.2 1625.9  SPLITTER 237-244 1637.2 N.G. N.G. 1529.7 1538.1 1577.9 1596.6 1589.8  245 1595.2  BOTTOM 301-308 N.G. 1367.8 1400.8 1424.1 1441.2 1502.9 1561.7 1588.6 309 1610.3  STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.005 N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072  NACELLE SIDE 321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 329 -0.245  CANOPY SIDE 330-334 N.G0.285 N.G. N.G0.235  CANOPY CENTER LINE 335-342 0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148  CANOPY SIDE			1.70.7		1031 (	1222	1224 7	1244 6	1001
SPLITTER 237-244 1637.2 N.G. N.G. 1529.7 1538.1 1577.9 1596.6 1589.8 245 1595.2 BOTTOM 301-308 N.G. 1367.8 1400.8 1424.1 1441.2 1502.9 1561.7 1588.6 309 1610.3  STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.005 N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072  NACELLE SIDE 321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 329 -0.245 CANOPY SIDE 330-334 N.G0.285 N.G. N.G0.235 CANOPY CENTER LINE 335-342 0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148 CANOPY SIDE						123302	1324 • 1	1300.0	1395.5
237-244 1637.2 N.G. N.G. 1529.7 1538.1 1577.9 1596.6 1589.8 245 1595.2 EOTTOM 301-308 N.G. 1367.8 1400.8 1424.1 1441.2 1502.9 1561.7 1588.6 309 1610.3 STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.005 N.G. N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072  NACELLE SIDE 321-328 N.G0.006 -0.108 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 329 -0.245  CANOPY SIDE 330-334 N.G0.285 N.G. N.G. N.G0.235  CANOPY CENTER LINE 335-342 0.639 -0.068 -0.500 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148  CANOPY SIDE			N.C.	1595.2	1625.9				
245								1104	1500 0
BOTTOM 301-308 N.G. 1367.8 1400.8 1424.1 1441.2 1502.9 1561.7 1588.6 309 1610.3  STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.005 N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072  NACELLE SIDE 321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 329 -0.245  CANOPY SIDE 330-334 N.G0.285 N.G. N.G0.235  CANOPY CENTER LINE 335-342 0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148  CANOPY SIDE			N.G.	N. G.	1529.7	1538.1	15//•9	1596.6	1589.8
301-308 N.G. 1367.8 1400.8 1424.1 1441.2 1502.9 1561.7 1588.6 309 1610.3  STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.005 N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072  NACELLE SIDE 321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 329 -0.245  CANOPY SIDE 330-334 N.G0.285 N.G. N.G0.235  CANOPY CENTER LINE 335-342 0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148  CANOPY SIDE		1595 • 2							
STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.005 N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072  NACELLE SIDE 321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 329 -0.245  CANOPY SIDE 330-334 N.G0.285 N.G. N.G0.235  CANOPY CENTER LINE 335-342 0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148  CANOPY SIDE	_								
STATIC PRESSURE COEFFICIENTS. CP  NACELLE TOP 310-317 N.G0.005 N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072  NACELLE SIDE 321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 329 -0.245  CANOPY SIDE 330-334 N.G0.285 N.G. N.G0.235  CANOPY CENTER LINE 335-342 0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148  CANOPY SIDE			1367.8	1400 • 8	1424.1	1441•2	1502.9	1561.7	1588.6
NACELLE TOP 310-317 N.G0.005 N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072  NACELLE SIDE 321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 329 -0.245  CANOPY SIDE 330-334 N.G0.285 N.G. N.G0.235  CANOPY CENTER LINE 335-342 0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148  CANOPY SIDE	309	1610.3							
NACELLE TOP 310-317 N.G0.005 N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072  NACELLE SIDE 321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 329 -0.245  CANOPY SIDE 330-334 N.G0.285 N.G. N.G0.235  CANOPY CENTER LINE 335-342 0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148  CANOPY SIDE									
310-317 N.G0.005 N.G. N.G. N.G0.458 -0.349 N.G. 318-320 N.G0.164 -0.072 NACELLE SIDE 321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 329 -0.245 CANOPY SIDE 330-334 N.G0.285 N.G. N.G0.235 CANOPY CENTER LINE 335-342 0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148 CANOPY SIDE			STATIC	PRESSUR	E COEFFI	CLENTS.	CP		
318-320 N.G0.164 -0.072  NACELLE SIDE  321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G.  329 -0.245  CANOPY SIDE  330-334 N.G0.285 N.G. N.G0.235  CANOPY CENTER LINE  335-342 0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148  CANOPY SIDE								0	
NACELLE SIDE  321-328  N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155  N.G.  329  -0.245  CANOPY SIDE  330-334  N.G0.285  N.G.  N.G0.235  CANOPY CENTER LINE  335-342  0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148  CANOPY SIDE					N.G.	N.G.	-0.458	-0.349	N.G.
321-328 N.G0.006 -0.108 -0.164 -0.201 -0.257 -0.155 N.G. 329 -0.245  CANOPY SIDE 330-334 N.G0.285 N.G. N.G0.235  CANOPY CENTER LINE 335-342 0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148  CANOPY SIDE			-0.164	-0.072					
329 -0.245  CANOPY SIDE  330-334 N.G0.285 N.G. N.G0.235  CANOPY CENTER LINE  335-342 0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148  CANOPY SIDE									
CANOPY SIDE  33U-334 N.G0.285 N.G. N.G0.235  CANOPY CENTER LINE  335-342 U.639 -U.068 -U.50U -U.819 -0.324 -U.300 -0.250 -0.148  CANOPY SIDE			-0.006	-0.108	-0.164	-0.201	-0.257	-0.155	N.G.
33U-334 N.G0.285 N.G. N.G0.235  CANOPY CENTER LINE 335-342 U.639 -U.068 -U.50U -U.819 -0.324 -U.300 -0.250 -0.148  CANOPY SIDE	329	-0.245							
CANOPY CENTER LINE 335-342 0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148 CANOPY SIDE									
335-342 0.639 -0.068 -0.500 -0.819 -0.324 -0.300 -0.250 -0.148 CANOPY SIDE	_			N.G.	N.G.	-0.235			
CANOPY SIDE	-								
			-0.068	-0.500	-0.819	-0.324	-0.300	-0.250	-0 • 148
343-344 -0.239 -0.180	CANOPY	SIDE							
	343-34	4 -0.239	-0.180						

## INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 20 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

PT 2	BOUN	DARY LAYE	R DUCT	OPEN. BO	TH ENGINE	S OPERAT	IVE	
	ΔΙ ΡΗΔ	BETA	мо	M/M*	LP	RP	ВР	
					1.50		_	
NR		PSC				L		M/MO
	1780	•6 1537	•2 15	80.0	16.02	1.36		0.617
		TOTA	L PRESS	URE RATIO	OS. PT/P	TO		
INLET	RAKE							
101-1	08 0.8476	0.8348	0.7847	0.7662	0.8143	0.8948	0.8744	N.G.
	116 0.7936							
	124 0.8093						0.8054	0.8763
	130 0.8894		0.8280	0.8048	0.8226	0.8638		
	ARY LAYER			= -				
	138 N.G.				0.5899	N.G.	0.5805	0.5819
	42 0.5824		0.5862	0.5878				
	ARY LAYER							
143-1	44 0.6192	0.6190						
		7 8.1	CT CTAT	1.C DDECC	ince. De			
DAKE I		INL	EI SIAI	IC PRESS	JRES. PS			
RAKE W	1ALL 206 1527.4	1546 0	1540.4	N. G.	1525.1	N.G.		
RAKE E		1340.3	124764	N•0•	132301	M•0•		
	212 1450.6	1463•9	1484.8	1479•1	1464.7	N.G.		
TOP	12 145000	140307	140480	14/741	140407	74.00		
	20 2061.6	1683.5	N.G.	944.6	851.5	973.7	1132•4	1227.0
	24 1278 9		1561.6		07107	, , , , , , , , , , , , , , , , , , ,	11320	122,00
SIDE	24 121007	15,001	150100	131304				
-	32 1984.2	1527.7	1110.1	900.3	1015.2	1158.1	1213.7	1253.0
	36 1293.6			1574.8				
SPLITT		.,,,,						
	44 1678.5	N.G.	N.G.	1444.4	1443.3	1496.1	1510.2	1491.3
245	1493.2							
BOTTOM	<b>!</b>							
301-3	108 N.G.	1379.1	1395.2	1409.8	1419.0	1451.2	1491.6	1517.7
309	1531.5							
		STATIC	PRESSU	RE COEFFI	CIENTS	CP		
NACELL								
	17 N.G.			N•G•	N.G.	-0.401	-0.335	N.G.
	20 N.G.	-0.164	-0.070					
	E SIDE		A 61-	0.01=	000	0.000		
	28 N.G.	0.148	0.017	-0.067	-0.123	-0.202	-0.132	N.G.
329	-0.267							
CANOPY		-0 244	AL. C	N.G.	-0.272			
	34 N.G.		14.00	N.O.	-00212			
	CENTER L		-0.502	-0.883	-0.377	-0.255	mn . 270	-0.143
	42 04033	-00013	-0.502	-0.003	-00511	-0.555	-01219	-00143

READ TUBES HORIZONTALLY AND CONSECUTIVELY.

N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

CANOPY SIDE

343-344 -0.272 -0.157

## INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 21 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*		RP		
NO	4.00	-0.13					O OPE	M/MO
NR 0.845	PTC	· -	•3 148		K 18•49	L 2•13	WC 1.70	
0.049	1805	• 2 1433	• 5 140	0101	10047	2015	10,0	00110
		TOTA	I DDFCCI	DE DATT	OS. PT/P	T n		
INLET F	DAVE	1017	L PRESSE	NE NAII	03 <b>)</b> F171			
	08 U.8474	0.8283	0.8008	0.7619	0.8114	0.9127	0.8777	N.G.
	16 0.8206		0.9127	0.9160		0.8683	0.8351	0.7715
	24 0.8079		0.9181	N•G•		0.7866	0.8096	0.8926
	0.9150	-	0.8552		•	0.8833	0.0070	0.0720
	RY LAYER I		0.6332	0.0230	0.0371	00000		
131-13			0.5930	NaGa	0.5938	N.G.	0.5888	0.5880
	2 0.5868	0.5868	0.5874	0.5884	0.0930	14.00	0.000	0.000
	RY LAYER (		0.5014	0.5004				
	4 U.6239							
143-1-	4 0 6 6 2 3 7	0.0229						
		TAU	ET STATI	C DDFSS	URES. PS			
RAKE WA	M-1-	1142	LI SIAII	C TRESS	OKESY FS			
	6 1442.4	1470.7	1473.2	N.G.	1434.8	N.G.		
RAKE BL		14/00/	141362	11000	145460			
	2 1327.5	1345.6	1367.0	1365.9	1347•3	N.G.		
TOP	12 132 103	134300	130760	130367	134163			
	2076.3	1685.2	N.G.	928.8	762.0	845.8	1000.0	1114.9
	4 1179.0	1473.2	1504.3	1516.1	10200	04340	10000	111407
SIDE	.4 11//60	14/302	150465	171001				
	2 2058.8	1549.4	1079.0	799.5	840•2	981.9	1061.2	1111.8
	6 1163.2	N•G•	1465.3	1525.4	04002	70107	100102	111100
SPLITTE		14.0.	140203	172764				
_	4 1709.0	N.G.	N.G.	1354.6	1344.4	1415.0	1427.2	1395.3
245	1394.7	1100		133460	134464	141500	142102	137303
BOTTOM	137401							
301-30	18 N.G.	1367.8	1379-1	1384.7	1390•3	1395.4	1423.3	1451.2
309	1460.4	130100	131701	150441	137003	1373	142343	145105
309	140014							
		STATIC	PRESSUR	F COFFE	ICIENTS.	CP.		
NACELLE	TOP	317110	. 1123301			C.		
310-31		0.094	N.G.	N.G.	N.G.	-0.340	-0.326	N.G.
318-32			-0.069	1,000	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
NACELLE		••1•						
321-32		0.230	0.084	-0.015	-0.077	-0-174	-0.124	N.G.
329	-C-283			2 4 4 1 7	J • J · ·			
CANOPY								
330-33		-0.291	N.G.	N.G.	-0.289			
	CENTER LI			.,,,,,				
	2 ().636		-0.508	-0.898	-0.415	-0.396	-0.303	-0.127
CANOPY		. •						
	4 -0.296	-0.137						

## INLET PRESSURE SURVEY 1/5 SCALE MODEL RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, PT 22 BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA	BETA	МО	M/M*		RP		
		-4.10					O OPE	
NR		PSC			K	L		M/MO
0.972	2076	•8 1534	0 148	4.3	12•48	3.21	2 • 17	0.915
		TOTA	L PRESSU	RE RATIO	OS. PT/P	TO		
INLET								
	0 0 9 1 0 5		0.9044	0.9151				N.G.
	6 0.9690		0.9950	0.9855	0.9913	0.9393		0.9944
	4 0.9955		0.9901	N.G.	0.9877	0.9892	0.9892	0.9840
125-13	0.9883	N.G.	0.9864	0.9829	0.9822	0.9846		
BOUNDAR	RY LAYER	RAKE						
131-13	88 N.G.	0.7036	0.8923	N.G.	0.8092	N.G.	0.8925	0.8613
139-14	2 0.8311	0.8087	0.7835	0.7727				
BOUNDAR	Y LAYER	DUCT						
143-14	4 0.7363	0.6518						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	\LL							
	6 1513.9	1556.2	1566.4	N.G.	1499.7	N.G.		
RAKE BL								
	2 1340.8	1362.5	1372.1	1360.3	1333.1	N.G.		
TOP					.,,,,,,,,			
	0 2038.7	1781.8	N.G.	1070.0	894.9	1066.9	1267.4	1317.3
	4 1367.3		1631.3	1624.8		10000,	120.0.	131103
SIDE	4 130163	102344	103103	102460				
	2 2118.1	1570.3	1094.3	804.9	866.7	1020.9	1108•4	1194.2
233-23		N.G.	1601.7	1656.2		102007	110004	111405
SPLITTE		14000	100101	100002				
	4 2115.5	N.G.	N.G.	1494.7	1444.1	1535.6	1512.7	1445.2
245	1445.2	14.00	1100	147461	144401	100000	101201	144702
BOTTOM	144702							
	B NaGa	1254.5	1330.5	1370-1	1380.8	1448.6	1558.6	1574.5
309	1576.8	123463	133003	13/011	130700	144000	133040	171407
309	197646							
		c= 4716	0000000		c15456	60		
NACELIE	700	STAILC	PRESSUR	E COEFF!	CIENTS.	CP		
NACELLE		0 122	A) C	<b>A</b> 1. C	A	0 250	0 210	A) C
310-31			N.G.	N•G•	N.G.	-0.256	-0.310	N.G.
	0 N.G.	-0.191	-0.098					
NACELLE			0 (10)					
321-32		0.474	0.301	0.171	0.085	-0.057	-0.115	N.G.
329	-0.304							
CANOPY	-							
330-33		-0.144	N.G.	N.G.	-0.115			
	CENTER LI							
	-	-0.010	-0.438	-0.819	-0.975	-0.543	-0.230	0.246
CANOPY								
343-34	4 -0.049	0.292						

## RUN 4 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA	BETA	Mo	M/M*	LP	RP	ВР	
	-0.01	-4.12	0.852	0.822	1.50	1.5	1 OPE	N
NR	PTC	PSC	PS	5 <b>B</b>	K	L	WC	M/MO
0.982	2098	•7 1686	0 165	4.0	6.08		1.99	
		TOTA	L PRESSU	JRE RATIO	OS. PT/P	ГО		
INLET								
	08 0.9470						0.9920	
	16 0.9890							0.9959
	24 6.9964						0.9940	0.9846
	30 0.9878		0.9858	0.9841	0.9846	0.9847		
	RY LAYER I							
	38 N.G.				0.8316	N.G.	0.8919	0.8596
	42 0.8285		0.7911	0.7762				
	RY LAYER							
143-1	44 0.7432	0.6546						
		* * * * * * * * * * * * * * * * * * * *			.5.5.6.5.5			
0445 11		INL	ET STATE	CPRESSU	JRES. PS			
RAKE W		1703.0	1714.3	N 6	1455 0	N C		
	06 1670.8	1703.0	1/1403	N.G.	1655.9	N.G.		
RAKE B	12 1549 <sub>•</sub> 4	1541.0	1566.7	1563.5	1545.5	N.G.		
TOP	12 134764	130107	130001	170367	194969	NOO		
	20 1996.7	1857.8	N.G.	1263.7	1260•9	1406.0	1460.5	1504.3
	24 1542.9	1763.2		1752.7	120007	140000	140003	130463
SIDE	24 134267	170362	1700.5	117201				
-	32 2123.2	1632.4	1185.8	962-1	1072.3	1328.6	1351.2	1420.7
	36 1463.9	N.G.	1752.7		10,543	132000	133142	142001
SPLITT		1400	117201	17740				
	44 2122.0	NaGa	N.G.	1676.5	1635.5	1695.4	1675.1	1623.7
	1614.4	,,,,,,		10.000	103503	1077	10.701	10230
BOTTOM								
301-30		1459.1	1511.3	1539.5	1555.1	1604.2	1695.5	1717.7
309	1719.0	2.13.42	17111	100.00	177701	100.02	10,,,,,	2.2.0.
507	2/1/00							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLI	TOP	•				•		
310-3		0.050	N.G.	N.G.	N.G.	-0.282	-0.328	N.G.
318-3		-0.192						
NACELL								
321-3		0.435	0.282	0.157	0.070	-0.074	-0.128	N.G.
329								
CANOPY								
	34 N.G.	-0.136	N.G.	N.G.	-0.106			
	CENTER LI							
	+2 0.668		-0.432	-0.810	-1.016	-0.542	-0.224	0.295
CANOPY	=							
	4 -0.038	0.333						

### INLET PRESSURE SURVEY

1/5 SCALE MODEL

CTOL FLIGHT REGIME

RYAN VZ-11 AIRCRAFT

RUN 4 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

ΡŢ	24 BOUN	IDARY LAYE	R DUCT (	DPEN, BOT	TH ENGINE	S OPERAT	INF	
	ALPHA	BETA	МО	M/M*	LP	RP	ВР	•
	-	-4.10				1.5	1 OPE	N
N		PSC			K	L	WC	M/MO
∪ • 9	83 2100	0.5 1089	0 165	57.9	6.00	2.60	1.99	0.839
						_		
		TOTA	L PRESSI	JRE RATIO	DS. PT/P	TO		
_	T RAKE							N
	-108 0.9484				0.9944			N.G.
	-116 0.9897							
	-124 0.9968						0.9931	0.9853
	-130 0.9887		()•9866	0.9847	0.9848	0.9854		
	DARY LAYER		0.007.3		0 0000		0.0000	0.01.00
	-138 N.G.				0.8330	N.G.	0.8923	0.8600
	-142 0.8293		0.7922	0.7773				
	DARY LAYER							
143	-144 0.7440	0.6554						
		TAU	ET STATE	C DDESSI	JRES. PS			
DAKE	WALL	INC	ET STAT	. FRESSO	JKEST FS			
	-206 1673.7	1705.6	1717.7	NaGa	1659.0	N.G.		
	BULLET	1,0300	1,1,0,	14000	103740	1100		
	-212 1553./	1565.5	1575.1	1567.	1548.9	N.G.		
TOP		1000	13.361	130.	134007	1100		
	-220 1994.1	1862.0	N.G.	1273.0	1284.0	1420.1	1467.8	1511.9
	-224 1548.6		1768.5	1/54.1			• . • . • •	
SIDE								
	-232 2122.6	1637.2	1192.0	974.8	1085.0	1344.7	1378.6	1425.2
	-236 1467.8							
SPLI		.,						
	-244 2119.2	N.G.	N.G.	1679.3	1639.2	1696.3	1676.8	1626.2
	1851.0							
BOTT								
301	-308 N.G.	1472.2	1520.3	154/01	1562.7	1610.6	1699.8	1722.9
309	1724.1							
		STATIC	PRESSUR	RE COEFFI	CIENTS.	CP		
	LLE TOP							
310	-317 N.G.		N.G.	N.G.	N.G.	-0.287	-0.328	N.G.
318	-320 N.G.	-0.192	-0.099					
	LLE SIDE							
	-328 N.G.		0.282	0.154	0.067	-0.075	-0.130	N.G.
329	-0.314							
	PY SIDE		AL C		0 101			
	-334 N.G.		N.G.	N•G•	-0.105			
	PY CENTER L		0			0	0 0 5	0 :
335	-342 U•667	-0.007	-0.434	-0.812	-1.022	-0.544	-0.217	0.296

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE, P.O PRESSURE OVERFLOW, DATA INVALID.

0.331

CANOPY SIDE

343-344 -0.035

### CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

-								
	ALPHA	BETA	MO	M/M*	LP	RP	ВР	
	-0.01	-4.12	0.850	0.627	1.00	1.0	L OPE	N
NR		PSC						
0.987	2110							0.640
		TOTA	L PRESSL	JRE RATIO	DS. PT/P	ro		
INLET F	RAKE							
101-10	8 0.9680	0.9765	0.9704	0.9652	0.9946	0.9899	0.9932	N.G.
109-11	6 0.9873	0.9834	0.9957	0.9893	0.9920	0.9932	0.9870	0.9955
	4 0.9960		0.9907	N.G.	0.9867	0.9964	0.9951	0.9877
125-13	0 0.9887	N.G.	0.9865	0.9887	0.9880	0.9866		
	Y LAYER F							
	8 N.G.				0.8170	N.G.	0.8613	0.8297
	2 0.8047		0.7852	0.7842				
	Y LAYER D							
143-14	4 0.7510	0.6554						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA								
	6 1892.8	1908.6	1913.9	N•G•	1881.8	N.G.		
RAKE BL		1000 1	1040-1	1440 0	1000			
	2 1834.0	1839.1	1843.1	1840.8	1828•4	N.G.		
TOP	0 1001 0	2045 2	N.G.	1707.9	1705.2	1740.6	1770.5	1702 1
	0 1801.0 4 1812.3			-	170503	1748.5	177005	1/9301
SIDE	4 1012.5	173400	193002	1932.6				
	2 2109.3	1900.4	1646.0	1564.1	1640.6	1698.2	1701.3	1740-0
	6 1762.3	N•G•		1954.3	104040	1070 02	110103	174000
SPLITTE		N.O.	172067	177407				
	4 2116.4	NaGa	N.G.	1910.3	1886.6	1905.5	1890.8	1864.0
	1857.2	1400	1100	171003	1000.0	1,000	107040	10040
BOTTOM								
301-30		1807.3	1813.7	1820.8	1824.7	1844.4	1897.6	1913.2
309	1914.2	100103	101347	102000	102401	104464	107100	171702
,,,	171442							
		STATIC	PRESSUR	E COEFFI	CIENTS	CP		
NACELLE	TOP							
310-31		-0.168	N.G.	N.G.	N.G.	-0.421	-0.363	N.G.
318-32		-0.198	-0.102					
NACELLE		•						
321-32		0.249	0.147	0.043	-0.032	-0.153	-0.170	N.G.
329	-0.337							
CANOPY	•							
330-33	·	-0.136	N.G.	N.G.	-0.088			
	CENTER LI	NE						
335-34	2 0.668	-0.006	-0.433	-0.810	-0.864	-0.496	-0.176	0.378
CANOPY	SIDE							
343-34	4 -0.014	0.408			•			

### INLET PRESSURE SURVEY

1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY 24E OVAL INLET 1 LONG SPLITTER 1
PT 26 BOUNDARY LAYER DUCT OPEN 1 BOTH ENGINES OPERATIVE

	ALPHA 0.00	BETA 3.85	M0 () = 85 ()	M/M*	LP 1•00	RP	BP 1 OPE	
NR	PTC				K	L	WC	 M/M0
0.986					2.83	1.62		
0 0 > 0 0	2100	• • • • • • • • • • • • • • • • • • • •	• 100	3.0	2.03	1001		00030
		TOTA	L PRESSU	RE RATIO	S. PT/P	ΓΟ		
INLET R	AKE			_		_		
101-10	8 0.9722	U.9889	0.9869	U.965U	0.9834	0.9910	0.9917	N.G.
	6 0.9893		0.9848	0.9910	0.9916	0.9929	0.9891	0.9716
117-12	4 0.9844	0.9901	U • 9915	N.G.	0.9886	0.9758	U.9857	0.9903
125-13	0 0.9919	N.G.	0.9899	0.9847	0.9891	0.9915		
BOUNDAR	Y LAYER I	RAKE						
131-13	8 N.G.	0.8420	0.7568	N.G.	0.7405	N.G.	0.8570	0.8264
139-14	2 0.7999	0.7825	0.7608	0.7546				
BOUNDAR	Y LAYER I	DUCT						
143-14	4 0.7168	0.6417						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA				•				
	6 1889.8	1905.0	1913.2	N.G.	1879.1	N.G.		
RAKE BU	_			0		_		
	2 1829.1	1834.5	1839.8	1837.6	1825.7	N.G.		
TOP		20.00		. 700				
	0 1791.8		N.G.	1782.2	1797.7	1842.6	1853.7	1865.5
	4 1873.7	1933.0	1934.7	1927.3				
SIDE	2 1// 5 0	2004 2	2040	1004 0	1050 5	1042.0	1012 7	1011
	2 1448.8	2084.3 N.G.	2060.6	1984.9 1960.7	1959•5	1942.0	1912.7	1911.2
233-23		N.O.	1933.3	19801				
SPLITTE	k 4 2104.4	AL. G	N.G.	1780.8	1706.2	1865.2	1874 - 0	1856.2
245	1854.5	N•G•		1100.0	177702	100702	10/4.0	1030.2
BOTTOM	165465							
301-30	A N.G.	1964.4	2003.8	2011.9	2008•9	1964.4	1925.5	1916.3
309	1913.7	170467	200300	201107	200007	170404	1,5,00	171003
J <b>U</b> )	171301							
		STATIC	PRESSUR	F COFFFI	CIENTS.	CP		
NACELLE	TOP	SIAIIC	· KESSOK	C COLI .	CILITITY	C.		
		-0.223	N.G.	NeGe	N.G.	-0.391	-0.312	N.G.
318-32		-0.200						
NACELLE								
321-32		-0.832	-0.697	-0.730	-0.726	-0.547	-0.362	N.G.
329		- • - <del></del>						
CANOPY								
330-33		-0.336	N.G.	N.G.	-0.243			
=	CENTER LI				-			
335-34	2 0.669	0.005	-0.429	-0.814	-0.565	-0.446	-0.213	0.227
CANODY	CIDE							

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

0.034

CANOPY SIDE

343-344 -0.225

1

## CTOL FLIGHT REGIME

RUN '4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 27 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RP		
		3.84			1.50			
NR	PTC	PSC		_	K	L	WC	M/MO
0.984	2102	7 1695	•0 166	5.4	7.08	2.91	1.98	0.838
		TOTA	L PRESSU	RE RATIO	S. PT/P	TO		
INLET F								
	08 0.9596		0.9772	0.9291	0.9954	0.9944	0.9957	N.G.
109-1	16 0.9831	0.9432	0.9956	0.9934	0.9944	0.9988	0.9825	0.9529
117-12	24 0.9956	0.9928	0.9949	N.G.	0.9853	0.9663	0.9954	0.9937
125-13	0.9968	N.G.	0.9916	0.9859	0.9965	0.9976		
BOUNDAR	RY LAYER F	RAKE						
131-13	88 N.G.	0.8415	0.8256	N.G.	0.7702	N.G.	0.9531	0.9258
139-14	2 0.8907	0.8588	0.8128	0.7873				
BOUNDAR	RY LAYER D	DUCT						
143-14	4 0.7302	0.6497						
		INL	ET STATI	C PRESSL	RES. PS			
RAKE WA	AL L							
	6 1680.0	1709.7	1725.7	N.G.	1664.5	N.G.		
RAKE BU		21070.	1.2001		100403			
_	2 1560.0	1572.4	1591.1	1576.9	1555.8	N.G.		
TOP	2 1300.0	171207	127101	13/00/	1777.0	11.00		
	20 1941.5	1901.9	N.G.	1504.4	1540.5	1617.9	1631.4	1652.3
		-			134003	1017.7	103104	102203
	4 1664.2	1774.3	1774.9	1756.0				
SIDE	12 1724 4	2001 0	1021 1	1766 6	1741 2	1724 1	1704.0	1477 6
	1734.8	2081.8	1921.1	1764.4	1741.3	1724.1	1706.8	1677.5
	6 1673.2	N.G.	1769.8	1821.7				
SPLITTE			A) C	3.6.7.2	1554 0	1450 7		1420 0
	4 2113.4	N.G.	N.G.	1544.2	1554.9	1059.1	1668.4	1629.2
245	1624.7							
BOTTOM						. = 0	. =	
301-30		1879.4	1883.0	1877.4	1863.3	1794.0	1753.6	1745.9
369	1742.8							
						_		
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE		. 6	.=					
	7 N.G.			N.G.	N.G.	-0.329	-0.322	N.G.
318-32	0 N.G.	-0.196	-0.110					
NACELLE								
321-32	8 N.G.	-0.728	-0.721	-0.705	-0.682	-0.507	-0.309	N.G.
329	-0.312							
CANOPY								
330-33	4 N.G.	-0.340	N.G.	N.G.	-0.282			
CANOPY	CENTER LI	NE						
335-34	2 0.664	-0.001	-0.436	-0.823	-0.900	-0.507	-0.251	0.216
CANOPY	SIDE							
343-34	4 -0.268	0.083						

# 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN ' 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 28 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RF		
5	0.00	3.84	0.848		2.00			
NR	PTC	PSC			K	L	WC	M/MO
0.975	2083	1 1551	• 3 150	02.0	9.87	3•77	2.16	0.911
		TOTA	L PRESSU	RE RATIO	OS. PT/P	10		
INLET F	RAKE							
	8 0.9326	0.9814	0.9577	0.8983	0.9917	0.9883	0.9896	N.G.
	6 0.9677		0.9925	0.9877	0.9893	0.9946	0.9695	0.9398
	4 0.9921		0.9904	N.G.	0.9738	0.9560	0.9927	6.9889
	0 0.9937	N•G•	0.9847	0.9799	0.9933	0.9938		
	Y LAYER I			••••		007730		
131-13			0.8440	N.G.	0.7806	N.G.	0.9688	0.9467
	2 0.9124		0.8242	0.7906	00.000	.,,,,,,		
	Y LAYER (		. 40212	00.700				
	4 0.7246	0.6475						
		INL	ET STATI	C PRESSI	JRES. PS			
RAKE WA	\L <b>L</b>							
201-20	6 1529.2	1571.6	1591.3	N.G.	1512.9	N.G.		
RAKE BL	JLLET							
207-21	2 1362.6	1383.3	1400.2	1379.6	1350.2	N.G.		
TOP								
213-22	0 2017.7	1797.5	N.G.	1276.8	1320.0	1447.3	1465 • 4	1492.5
	4 1512.9	1666.5	1669.0	1645.6				
SIDE			•					
	2 1855.3	2036.9	1791.8	1581.7	1573.8	1554.4	1523.9	1507.2
233-23		N.G.	1663.1	1730.5				
SPLITTE		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		2.3005				
	4 2120.5	N.G.	N.G.	1395.4	1388.6	1530.9	1535.4	1479.3
245	1472.2	,,,,,,						2
воттом	.41242							
301-30	18 N.G.	1783.3	1777.1	1765.6	1744.6	1655.6	1621.1	1617.5
309	1611.6	1.0303	1	2.0000	2	1077 (0	100141	101103
50,	101140							
		STATIC	PRESSUR	F COFFE	CIENTS.	CP		
NACELLE	TOP	SIRITE	r KESSOK	L COLIT	CILITIST	Cr		
	7 N.G.	0.060	N.G.	N.G.	11.G.	-0.290	-0-316	N.G.
318-32			-0.107	11000	11000	00270	01310	
NACELLE		-00193	-0.107					
321-32		-0.603	-0.660	=0.626	-0.573	-0.505	-0.285	N.G.
321-32		-0.003	-0.000	-0.020		0.00	01207	14.0.
CANOPY	<b>-</b>							
330-33		-0.337	N.G.	N.G.	-0 - 304			
	CENTER LI		14.00	14.5.5	0.304			
	2 U.665		-()-422	-0-820	-1.004	=0-524	=0.254	0.187
		0.001	-00433	-01020	1 1 0 0 4	-0.720	-01210	0-10/
CANOPY	_	0 04 3						
545-54	4 -0.290	0.003						

## CTOL FLIGHT REGIME

RUN ' 4
BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER,
PT 29
BOUNDARY LAYER DUCT OPEN, L/H ENGINE OPERATIVE

	ALPHA 0.00	BETA -0.54	M0 0•698	M/M* 0.870	LP 2•00	RF -0•0		
NR	PTC	PSC			K	L	WC	M/M0
0.990	2114		•6 160	_		4.57		0.953
0.990	2114	2 1051	• 6 160	4.0	13.50	4001	2011	00973
		TOTA	I PRESSII	RE RATIO	S. PT/P	ŤΩ		
INLET F	RAKE	1017	E TRESSO	NE NATIO	7 7 17 1	, 0		
101-10	08 1.0000	1.0000	1.0000	0.9653	0.8664	0.9752	0.9998	N.G.
109-11	6 0.9998	0.9810	0.9644	0.9907	0.9999	1.0000	0.9998	0.9962
117-12	4 0.9944	0.9962	0.9998	N.G.	0.9996	0.9994	0.9995	0.9993
125-13	0 0 9995	N.G.	0.9998	0.9996	0.9993	0.9998		
BOUNDAR	Y LAYER F	RAKE						
131-13	18 N.G.	0.8616	0.8933	N.G.	0.8490	N.G.	0.9732	0.9289
139-14	2 0.8832	0.8595	0.8401	0.8366				
BOUNDAR	Y LAYER D	DUCT						
143-14	4 0.8365	0.7518						
		INL	ET STATI	C PRESSU	IRES. PS			
RAKE WA	ALL.	• • • • • • • • • • • • • • • • • • • •	er orar.					
	6 1611.4	1659.7	1687.9	N.G.	1591.3	N.G.		
RAKE BL				.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
	2 1489.1	1504.4	1515.7	1503.8	1478.4	N.G.		
TOP								
	0 1549.0	2128.7	N.G.	1958.7	1924.5	1920.8	1903.3	1891.5
	4 1879.6	1727.7	1736.8	1733.1			•	
SIDE			2.2000					
<del>-</del>	2 1723.5	2138.0	2065.4	1965.5	1929.6	1902.2	1872.6	1848.3
233-23		N.G.	1756.0	1811.6				20.003
SPLITTE		,,,,,,						
237-24		N.G.	N.G.	1290.9	1296.6	1356.7	1518.8	1598.7
245	1599.5	11000		12,00,		13300.		10000
BOTTOM	13,,43							
301-30	A NaCa	2020-1	1991.5	1977.4	1964.6	1900-9	1775.3	1697.0
	1694.2	202001	1,,10,	17714	170440	1,000,	111703	107700
509	107402							
		STATIC	PRESSURI	F COFFFI	CIENTS.	CP		
NACELLE	TOP	317110	· KESSOM	L COLIT	CILITION			
	7 N.G.	-1.283	N.G.	NeGe	N.G.	-0.409	-0.311	N.G.
	U N.G.				1.000	00407	••	
NACELLE		-04103	0.011					
321-32		-0.708	-0.538	-0.492	-0.472	-0.421	-0.274	N.G.
	-0.275			, , _	U + 1 E			.,,,,,,
CANOPY								
	4 N.G.	-0.279	N.G.	NaGa	-0.014			
	CENTER LI	-	.,,,,,		0.014			
	2 0.601		-0.5 1	-0.79H	-0.584	-0.361	0.166	0.427
CANOPY			·		· ·			
	4 0.131							
J= J= J=	- 001JI							

## 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN '4 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, L/H ENGINE OPERATIVE

	ALPHA	DETA	МО	M/M*	LP	RP	вР	
	-0.01				1.50		_	
NR	PTC				K	L	WC O. EII	M/MO
0.995	2125				9.03	3.19	1.86	0.838
	2120	.,		,,,	, , , ,	3027		
		ATOTA	L PRESSU	JRE RATIO	OS. PT/P	ro		
INLET	RAKE							
101-1	08 1.0011	1.0010	1.0010	0.9784	0.9113	0.9852	1.0010	N.G.
109-1	16 1.0010	0.9920	0.9869	0.9971	1.0008	1.0008	1.0008	0.9995
117-1	24 0.9989	0.9996	1.0010	N.G.	1.0007	1.0008	1.0005	1.0010
125-1	30 1.0010	N.G.	1.0006	1.0010	1.0010	1.0010		
BOUNDA	RY LAYER I	RAKE						
131-1	38 N.G.	0.8893	0.8603	N.G.	0.8319	N.G.	0.9229	0.8755
139-1	42 0.8397	0.8246	0.8170	0.8163				
BOUNDA	RY LAYER I	DUCT						
143-1	44 0.8310	0.7474				•		
		INL	ET STATI	C PRESSU	JRES PS			
RAKE W								
	06 1772.9	1804.8	1822.9	N.G.	1755•1	N.G.		
RAKE B			. 306 .					
	12 1689.0	1696.7	1705 • 4	1701.5	1684.5	N.G.		
TOP	20 1460 0	2122 5	N 6			1076	1042 1	
	20 1468.8		N.G.		1979.0	1975.6	1962•1	1953.0
	24 1944.8	1853.9	1922.0	1851.1				
SIDE	22 1414 0	2137.1	2101 4	2024.5	1992.3	1968.6	1944.8	1927.1
	32 1616.8 36 1913.8	N.G.	1869.5	1907.0	177203	1700 • 0	174460	192101
SPLITT		14.0.0	100903	190780				
	44 1619.3	N.G.	N.G.	1520.5	1551.3	1581.7	1708.0	1756.8
245	1754.0	1100		132003	100140	17014		
BOTTOM	213440							
	DB NeGe	2070.3	2042.1	2027.5	2014.8	1965.6	1881.0	1831.3
	1826.2			•				
		STATIC	PRESSUR	E COEFFI	CIENTS.	CF		
NACELLI	E TOP				CLENICO	<b>C</b> .		
		-1.364	N.G.	1:.G.	N.G.	-0.419	-0.321	N.G.
	20 N.G.							
NACELLI		-						
		-0.810	-0.603	-0.513	-0.503	-0.443	-0.283	N.G.
329	-0.284							
CANOPY								
330-3	34 N.G.	-0.281	N.G.	N.G.	-0.003			
_	CENTER LI							
		-0.083	-0.523	-0.806	-0.584	-0.353	0.197	0.421
CANOPY								
21.2 21		0 247						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

343-344 0.153 0.367

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 31 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

PI	31	BOOM	DARY LAYE	R DUCT	OPEN. L/I	HENGINE	OPERALIVE		
	ALPH	1A				LP			
			-0.54						
NR			PSC				L		
0.97	0	2072	•6 1907	·8 19	01.1	2.96	1.55	1.35	0 • 609
			TOTA	I PRESS	URF RATIO	OS. PT/P	TO		
INLET	RAKE		1014	E INCOO	OKE KATT				
		9625	0.9701	0.9787	0.9770	0.9507	0.9629	0.9650	N.G.
109-	116 0	9770	0.9794	0.9617	0.9673	0.9662	0.9698	0.9740	0.9777
117-	124 0	9666	0.9684	0.9684	N.G.	0.9721	0.9757	0.9698	0.9697
	-		N.G.	0.9727	0.9753	0.9746	0.9741		
	ARY LA								
	_		0.8471			0.7228	N.G.	0.7067	0.7087
			0.7181	0.7239	0.7278				
	ARY LA								
143-	144 0	, / 4 / 1	0.7267						
•			TAIL	FT STAT	1 PRFSSI	JRES PS			
RAKE	WALL		1142	LI SIAI	10 110330		•		
	206 19	00.0	1914.4	1924.5	N.G.	1892.3	N.G.		
	BULLET			•					
207-	212 18	353.9	1859.0	1862.1	1853.9	1841.8	N.G.		
TOP									
	220 17					1852.8	1892.0	1910•4	1925.1
	224 19	32.4	1925.6	1927.3	1929.6				
SIDE	222 14	0.0	1070 0	1007 (	.000	1004 5	10/1 7	1044 0	1040.0
	232 16				1888•4	1924.5	1941.7	1946.0	1949.9
	236 19	121.0	N.G.	1942.3	1958.1				
SPLIT	16K 244 17	76 H . 1	N.G.	N.G.	1679.9	1741.0	1811.0	1852.0	1864.7
	18		N.O.	14.0.	101702	1/4100	1011.0	1032.0	10041
BOTTO		70.0							
301-		N.G.	1844.9	1920.1	1960.0	1981.8	2013.5	1969.0	1930.3
309		19.3							
			STATIC	PRESSU	RE COEFFI	CIENTS.	CP		
	LE TOP	•							
310-		N.G.		N.G.	N.G.	N.G.	-0.422	-0.322	N.G.
318-		N.G.	-0.165	-0.079					
	LE SIC		0.403	= (, ( 7)	() - 1.7		0 4 20	0.261	• •
	328		-0.692	-0.571	-0.512	-0.481	-0.420	-0.261	N. G.
329		250							
33U-	Y SIDE	N.G.	-0.258	NaGa	N.G.	0.121			
	Y CENT				1100	0 1 2 1			
				-0.485	-0.698	-0.417	-0.122	0.182	0.042
	Y SIDE						<b></b>		<del></del>
	344 0		-0.076						

## 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN ' 4 BASIC CANOPY • 24E OVAL INLET • LONG SPLITTER • BOUNDARY LAYER DUCT OPEN • L/H ENGINE OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RP	BP	
	-4.01	-0.54	0.01	0.586	1.00	-0.03	OPEN	W / W O
NR () OOR	2122	PSC 4 1953	PS	2 7	X 2 - 4.6	1.61	WC	M/M0 0.641
0.998	2132	• 4 1955	194	201	2 6 4 0	1001	1043	0.041
		TOTA	L PRESSU	RE RATIO	OS. PT/P	TO		
INLET	RAKE							
101-1	08 0.9996	1.0004	1.0007	0.9889	0.9765	0.9865	1.0006	N.G.
109-1	16 1.0005	0.9989	1.0000	0.9934	1.0006	1.0011	1.0007	1.0002
		0.9989				1.0007	1.0006	1.0010
		N.G.	1.0006	1.0008	1.0005	1.0005		
	RY LAYER I							
		0.7994			0.8137	N.G.	0.9643	0.9231
	-	0.8545	0.8369	0.8429				
	RY LAYER I							
143-14	44 0.8483	0.7517						
		TALL	ET STATI	C DDE CCI	JRES. PS			
RAKE WA	<b>Δ</b> ΙΙ	1146	EI SIAII	C PRESSE	KEST PS			
		1961.2	1969.7	NaGa	1937.5	NaGa		
RAKE BI		170102	1,0,0,		1,3,00	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	12 1901.4	1906.2	1909.0	1907.6	1896.3	N.G.		
TOP								
	20 1419.1	2116.5	N.G.	2068.8	2044.2	2045.9	2038.3	2032.7
221-22	24 2029.8							
SIDE								
225-23	32 1336.9	2088.3	2135.4	2104.7	2077.8	2056.1	2027.9	2030.1
233-23	36 2022.2	N.G.	1996.2	2013.7				
SPLITTE								
		N.G.	N.G.	1673.2	1787.0	1879.3	1915.5	1918.9
	1922•3							
BOTTOM		2007 1	0.01:0 3	2072	2011	2010	.000	
301-30		2087.1	2080.7	20/3.1	2066.7	2040.1	1998.6	1974.8
309	1970.2							
		CTATIC	DDECCLID	- (AFEE1	CIENTS,	CD		
NACELLE	TOP	SIAIIC	FRESSOR	c coci i i	CIENTSY	Cr		
		-1.200	N.G.	N.G.	N.G.	-0.378	-0.301	N.G.
318-32								
NACELLE								
		-1.181	-0.753	-0.690	-0.667	-0.580	-0.353	N.G.
329	-0.297							
CANOPY	SIDE							
330-33			N.G.	N.G.	0.008			
	CENTER LI	-						
		0.011	-0.410	-0.679	-0.517	-0.299	0.232	0.499
CANOPY	SIDE							

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

0.416

343-344 0.188

### RYAN VZ-11 AIRCRAFT

## CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 33 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA	BETA	M0	M/M*				
NR	-4.01 PTC	-0.54 PSC			K 1.50	_0.0	WC WC	M/M0
0.994	2122		•3 176				1.88	0.844
0.994	2122	1119	• 5 110	10 • 1	10.00	3.37	1.00	00044
		T() T A	L DOLLER	OF OATL	0.C D.T.(D.	• •		
		IUIA	L PRESSU	RE RAIL	US. PT/P	10		
INLET F								
	8 1.0006		1.0008	0.9728	0.8938	0.9849		N.G.
	6 1.0007		0.9799	0.9988	1.0008	1.0011	1.0006	0.9990
	4 0.9977	_	1.0007	N.G.	1.0005	1.0008	1.0002	1.0006
	30 1.0001	N.G.	1.0007	1.0008	1.0004	1.0005		
	RY LAYER F							
131-13			0.9348	N.G.	0.8756	$N \cdot G \cdot$	0.9981	0.9815
139-14	2 0.9380	0.9074	0.8767	0.8679				
BOUNDAR	RY LAYER D	DUCT						
143-14	4 0.8509	0.7542						
		INL	ET STATE	C PRESSI	JRES. PS			
RAKE WA	\LL							
201-20	6 1762.5	1796.3	1815.0	N.G.	1743.5	N.G.		
RAKE BL	ILLET							
	2 1678.6	1689.6	1698.4	1688.5	1672.9	N.G.		
TOP								
_	0 1531.8	2128.1	N.G.	2002.4	1975.6	1972.8	1961.2	1952.2
	4 1943.7	1847.2	1848.0	1843.8				
SIDE								
	2 1492.0	2131.2	2118.2	2045.4	2006 • 1	1979.6	1953.6	1931.6
233-23		N•G•	1863.0	1901.6		27.700	2,,,,,,	2,2100
SPLITTE		11000	100300	170140				
-	4 1615.3	N.G.	N.G.	1559.7	1558.9	1546.2	1687.3	1753.1
	1750.3	14.0.	11.55	133701	133007	1340.2	100703	177501
245	175043							
BOTTOM	.0 11 6	20/1 0	2026 (	2016 0	2007 2	1041 0	107/ 0	1024 0
301-30		2041.9	2025.5	2010.0	2006•3	1901.0	10/4.0	1824.9
309	1818.6							
			00555	5 60 <b>55</b> 5		50		
	*00	STATIC	PKESSUR	E COEFF	ICIENTS.	CP		
NACELLE					A	0 01	0.000	A
310-31				N•G•	N.G.	-0.361	-0.289	N.G.
318-32		-0.168	-0.091					
NACELLE								
321-32		-1.062	-0.761	-0.652	-0.630	-0.553	-0.341	N.G.
329	-0.296							
CANOPY								
3 <b>3</b> 0-33	4 N.G.	-0.221	N.G.	N.G.	-0.014			
CANOPY	CENTER LI	-						
335-34	2 6.647	0.013	-0.408	-0.685	-0.533	-0.340	0.184	0.491
CANOPY	SIDE							
343-34	4 0.148	0.419						

## INLET PRESSURE SURVEY

1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 34 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA	BETA -0.54	MQ 0 - 700	M/M*	LP 2•00			
NR		PSC			K	L	WC	
0.988	· -	•1 1620		_	17.58	4.92		
0,00	2110	•1 1020	100		11450	4072	2414	<b>44</b> 700
		TOTA	L PRESSU	RE RATIO	DS. PT/P	TO		
INLET R	AKE							
	8 1.0002	1.0010	1.0008	0.9621	0.8276	0.9865	1.0007	N.G.
	6 1.0010	0.9771	0.9298	0.9988	1.0008	1.0013	1.0007	0.9975
117-12	4 0.9919	1.0000	1.0010	N.G.	1.0008	1.0008	1.0001	1.0007
125-13	0 1.0007	N.G.	1.0008	1.0007	1.0007	1.0006		
	Y LAYER I							
131-13	8 N.G.	0.9421	0.9490	N.G.	0.8795	N.G.	0.9996	0.9903
139-14	2 0.9519	0.9186	0.8821	0.8694				
BOUNDAR	Y LAYER I	DUCT						
143-14	4 0.8508	0.7545						
		INL	ET STATI	C PRESS	URES. PS			
RAKE WA	LL							
201-20	6 1592.9	1642.6	1674.5	N.G.	1570.6	N.G.		
RAKE BU	LLET							
207-21	2 1468.4	1485.9	1503.7	1485.3	1456.5	N.G.		
TOP								
213-22	0 1621.1	2121.2	N.G.	1942.4	1914.8	1913.9	1897.5	1886.2
221-22	4 1874.4	1717.4	1722.5	1718.8				
SIDE								
	2 160/•9	2137.5	2085.9	1986.2	1941.6	1910.0	1881.2	1849.3
	6 1829.2	N.G.	1742.8	1800.4				
SPLITTE								
237-24	4 1466.1	N.G.	N.G.	1367.6	1363.3	1327.8	1465.5	1587.5
245	1592.6							
BOTTOM								
3-1-30		2002.0	1980∙8	1973•1	1961.3	1899.9	1768•2	1688.4
309	1682.0							
		STATIC	PRESSUR	E COEFF	ICIENTS.	CP		
NACELLE								
310-31			N.G.	N.G.	N.G.	-0.350	-0.289	N.G.
318-32	0 N.G.	-0.172	-0.093					
NACELLE			_ =					
321-32		-0.944	-0.730	-0.613	-0.600	-0.540	-0.342	N.G.
329	-0.302							
CANOPY			4. 4	. =				
330-33		- <del>-</del>	N.G.	N.G.	-0.032			
	CENTER LI		_					
		0.006	-0.417	-0.699	-0.549	-0.349	0.158	0.471
CANOPY								
343-34	4 0.126	0.395						

#### CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 36 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA	BETA		M/M*				
		-0.12						
NR	PTC				K	L	WC	M/MO
0.984	2101	8 1648	•4 162	0.7	13.12	4.10	2.08	0.932
		7074			26 07.40	<b>T</b> 0		
	_	TOTA	L PRESSU	RE RATIO	DS. PT/P	10		
INLET R		0.000	0.404.40	0 41100	0 4710	0 (1710	0.0003	<b>N</b> I (**
	18 0.9953		0.9850	0.9833	0.8710	0.9710		N.G.
	6 0.9863		0.9269	0.9884	1.0000	0.9963	0.9863	
	4 0.9645		1.0001	N.G.	0.9889	0.9932	0.9896	0.9978
	0.9999		0.9942	0.9964	0.9990	1.0000		
	Y LAYER F						0.7000	0.3344
131-13				N.G.	0.7412	$N \bullet G \bullet$	0.7938	0.7764
_	2 0.7674	0.7638	0.7606	0.7630				
	Y LAYER (							
143-14	4 0.7763	0.7313						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA								
	6 1626.5	1670.0	1691.7	N.G.	1605.6	N.G.		
RAKE BU	LLET							
207-21	2 1505.1	1518.6	1554.5	1519.8	1491.5	N.G.		
TOP								
213-22	0 1620.8	2112.7	N.G.	1895.8	1863.1	1875.0	1866.5	1861.7
221-22	4 1855.2	1737.2	1736.6	1732.7				
SIDE								
225-23	2 1918.2	2082.5	1956.0	1862.2	1865.4	1860.8	1852.9	1827.5
233-23	6 1817.6	N.G.	1756.9	1804.4				
SPLITTE	R							
237-24	4 1482.8	N.G.	N.G.	1288.2	1355.4	1406.3	1526.3	1581.6
245	1601.6							
BOTTOM								
301-30	8 N.G.	1964.6	1988.2	1991.5	1986.6	1932.2	1790.9	1703.5
309	1697.3							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
		-1.140	N.G.	N.G.	N.G.	-0.453	-0.331	N.G.
318-32					7.3			
NACELLE								
321-32		-0.442	-0.376	-0.366	-0.355	-0.319	-0.217	N.G.
	-0.261	•••••					• • • • • • • • • • • • • • • • • • • •	
CANOPY	•							
		-0.327	N.G.	NaGa	0.067			
	CENTER LI							
-		-0.162	-0.611	-0.875	-0.572	-0.303	0.198	0.244
CANOPY		0,101	00011		Q <b>Q</b> J , L			00277
24.2.24	4 0 170	0 104						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

343-344 0.178 0.186

### 1/5 SCALE MODEL INLET PRESSURE SURVEY

#### RYAN VZ-11 AIRCRAFT

### RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER. PT 37 ROUNDARY LAYER DUCT OPEN. L/H ENGINE OPEKATIVE

CTOL FLIGHT REGIME

PT	37	BOUN	DARY LAYE	R DUCT (	DPEN. L/F	I ENGINE	OPERATIV	Ł	
		LPHA				LP			
	1,	4.02	-0.12	0.702	0.731	1.50	-0.0	3 OP E	N
١	IR .	PTC	PSC	P\$	5B	K	L	WC	M/MO
U . 9	77					6.61	2.73	1.78	0.800
			TOTA	ı PRESSI	IPE BATIL	S. PT/P	T O		
TNLE	T RA	K F	1017	E TRESS	DILL INDITE	,3, ,1,,			
			0.91//	0.9114	UAYASI	0.9266	0.9685	0.4778	N. G.
						0.9823			
						0.9735		0.9787	
			N•G•	0.9802				•••••	0010.2
		LAYER F		00,002	007002		007711		
				0.7049	N.G.	0.7087	N.G.	0.7242	0.7206
			0.7227		0.7261				
		LAYER			00.201				
			V•7227						
142	, 144	961433	001221						
			INL	ET STATE	C PRESSU	IRES PS			
RAKE	WAL	L							
		_	1790.5	1807.2	N.G.	1750.2	N.G.		
	BUL								
		1682.4	1690.3	1700.5	1688.6	1672.5	N.G.		
TOP									
213	-22u	1720.8	2080.5	N.G.	1817.4	1814.8	1847.6	1857.7	1867.9
221	-224	1873.3	1833.7	1832.0					
SIDE									
		1876.9	2000.9	1878.3	1830.1	1868.7	1884.6	1882.9	1880.9
233	-236	1879.5	N.G.	1846.2	1874.4				
SPLI	TTER								
237	-244	1581.3	N.G.	N.G.	1427.1	1511.0	1611.8	1690.9	1714.3
245	,	1731.2							
BOTT	OM								
301	-308	N.G.	1844.2	1915.8	1951.1	1970.3	1977.4	1884.3	1820.6
309	)	1809.9							
			STATIC	PRESSUR	L COEFFI	CIENTS.	CP		
NACE	LLE	TOP							
310	-317	N.G.	-0.940	N.G.	N.G.	N.G.	-0.467	-0.339	N.G.
318	-320	N.G.	-0.156	-0.065					
NACE	LLE :	SIDE							
321	-328	N.G.	-0.468	-0.407	-0.384	-0.371	-0.331	-0.206	N.G.
329	)	-0.238							
CANO	PY S	IDE							
	-		-0.320	N.G.	N.G.	0.129			
		ENTER LI							
			-0.159	-0.599	-0.830	-0.501	-U.202	0.168	0.079
CANO	PY S								
21. 2	-21.1	0 173	-0.000						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

343-344 0.173 -0.009

INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT 1/5 SCALE MODEL

CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 38 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RP	BP	
_					1.00			
NR	PTC		PS		K	L		M/MO
0.940	2007	•1 1862	•5 186	2.9	3.47	1.43	1.26	0.563
		TOTA	I DDCCC	DE DATIC	) C	r o		
THE ET D	A V C	IOTA	L PRESSU	RE RAIL	OS. PT/P	10		
INLET R	8 0.9306	0.9448	0.9596	0.9510	0.9270	0.9339	0.9313	N.G.
	6 0.9536		0.9353	0.9366	0.9294	0.9352	0.9466	0.9484
	4 0.9376		0.9306	N.G.		0.9445	0.9385	0.9359
	0 0.9348		0.9407	0.9442	0.9425	0.9397	007302	
	Y LAYER		0.00	007142	007425	00131.		
	8 N.G.		0.6939	N.G.	0.7050	N.G.	0.6886	0.6914
	2 0.6942		0.7060	0.7087				
	Y LAYER							
143-14	4 0.7303	0.7229						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA					11			
	6 1852.7	1868.5	1878.9	N•G•	1850.1	N.G.		
RAKE BU								
	2 1809.5	1813.4	1811.4	1805.2	1802.7	N.G.		
TOP	. 1705 2	1006 5	AL G	1714 0	52.7	1804 4	1020 2	3060 1
	0 1785.2 4 1859.4	1986.5 1868.7	N.G. 1872.4	1716.8 1877.8	72.1	1804.4	1829.2	1848 • 1
SIDE	4 103764	100001	10/204	10//00				
	2 1708.9	1827.0	1747.9	1758.3	1826•1	1856.9	1870.4	1880.9
233-23		N•G•	1892.2	1908.0	10201	10,000	10/044	1000.9
SPLITTE		1100	107202	170000				
237-24		N.G.	N.G.	1638.1	1692.6	1765.4	1806.6	1819.1
245	1834.3	1,000		20300.	10/200		20000	101/01
BOTTOM								
301-30	B N.G.	1716.8	1793.0	1839.6	1869.5	1942.1	1923.5	1884.3
309	1872.3							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE								
				N.G.	N.G.	-0.473	-0.342	N.G.
	0 N.G.	-0.157	-0.064					
NACELLE								
321-32		-0.486	-0.433	-0.402	-0.381	-0.351	-0.221	N.G.
	-0.212							
CANOPY		-0.304	A) C	N. C	0 000			
	NoGo		N • G •	N.G.	0.098			
	CENTER L		-0.569	-0.722	-0.353	-0-051	0.003	-0.012
CANOPY S		-0.146	-0.508	-00133	-0 0 5 5 5	-0.001	0.073	-0.012
	0.103	-0.098						
J . J J 4.								

### INLET PRESSURE SURVEY 1/5 SCALE MODEL R

RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY > 24E OVAL INLET + LONG SPLITTER + PT 39 BOUNDARY LAYER DUCT OPEN + L/H ENGINE OPERATIVE

	, Boom	DANT EATE			· LINGTILL \			
	ALPHA	BETA	MO	M/M*	LP	RP	ВР	
					1.00		-	
NR		PSC				L		
0.964	2057	8 1897	.3 189	3.2	2.19	0.89	1.33	0.599
		TOTA	L PRESSU	JRE RATIO	S. PT/PT	0		
INLET								
101-1	08 0.9545				0.9626		0.9608	
	16 0.9530			_	0.9630			0.9595
	24 0.9691			N.G.			0.9700	0.9700
125-1	30 0.9729	N • G •	0.9643	0.9673	0.9729	0.9740		
	RY LAYER I							
	38 N.G.			N.G.	0.7379	$N \bullet G \bullet$	0.7126	0.7185
_	+2 U.7257		0.7437	0.7489				
	RY LAYER							
143-14	4 0.7479	0.7242						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE W								
	06 1890.2	1901.5	1008.0	N.G.	1889.6	N.G.		
RAKE BI								
	12 1841.6	1849.5	1851.8	1846.2	1835.1	N.G.		
TOP	1334 2	2051 7	N	1007.5	1010		1070 7	
	20 1774.2			1807.5	1810.3	1851.8	18/0./	1886.8
	24 1898.7	1914.8	1918.4	1919.3				
SIDE	1020 H	1050 3	1746 6	1745 6	1000	1442 2	1057 2	1040 2
	32 2030.8		1785.5		100003	1842.2	103403	1869.3
	6 1879•2	N.G.	192300	1939.9				
SPLITTE	1864 • 2	N.G.	N.G.	1755.8	1786.3	1839.7	1865.4	1865.9
245	1871.6	N.O.	14.00	113380	170003	103767	100304	1803.9
BOTTOM								
301-30		1870.5	1012.6	1029.6	1940.1	1952.1	1927.5	1904.0
309	1907.6	10/963	191207	192960	174081	177301	172167	190460
309	190760							
		STATIC	DDESSIID	E COEFFI	CIENTS	СР		
NACELLE	TOP	SIAIIC	PRESSOR	t COLFF1	CIENTS	Cr.		
310-31		-0.624	N.G.	N.G.	N.G.	-0.410	-0.328	N.G.
318-32			-0.091	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		001120	.,,,,,	
NACELLE		••••						
321-32		-0.053	-0.108	-0.157	-0 • 185	-0.208	-0.142	N.G.
329	-0.227		00200		0.200	00200	30076	
CANOPY	•							
330-33		-0.157	N.G.	N.G.	0.091			
	CENTER L							
	2 0.595		-0.480	-0.682	-0.392	-0.103	0.183	0.069
CANOPY		-			_	·	_	
24.2-24	147	0 055						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

343-344 0.167 0.055

### INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 40 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

		0574			. 0	0.0	D()	
	ALPHA -0.01			M/M* U.764	LP 1•50		BP 3 OPE	
NR	PTC				K 1.50	-0•0 L	WC OFE	M/MO
J. 998	2134		•4 178		2.28	2.54	1.83	0.836
0,770	2134	1002	• 110		2020	2004	1403	0000
		TOTA	L PRESSU	RE RATIO	S. PT/P	ГО		
INLET R	AKE							
101-10	8 1.0000	1.0008	1.0008	0.9787	0.9792	0.9816	1.0008	N.G.
109-11	6 1.0008	0.9974	1.0007	0.9934	1.0010	1.0014	1.0007	1.0006
117-12	4 1.0007	0.5998	1.0006	N.G.	1.0004	1.0008	1.0004	1.0006
125-13	0 1.0006	N.G.	1.0004	1.0008	1.0007	1.0006		
BOUNDAR	Y LAYER F							
131-13		0.8189	0.0824	N.G.	0.8423	N.G.	0.9569	0.9098
	2 0.8678		0.8343	0.8351				
	Y LAYER	_						
143-14	4 0.8324	0.7491						
		7 411	CT (TATE	c 001 cc	.D. (			
DAKE MA		INL	ET STATI	C PRESSU	IRES. PS			
RAKE WA		1815.1	1832.1	N . C	1777.9	N. C.		
	6 1784.7	101501	103241	N•G•	111109	N•G•		
RAKE BU	2 1703.1	1712.4	1723.7	1713.8	1698.5	N.G.		
TOP	2 110361	1/1204	112301	171300	109000	M • G •		
	U 1550.9	2139.0	N.G.	19/8.1	1945.9	1947.3	1938.2	1932.9
	4 1928.9	1869.6	1869.6	1860.3	1,430,	174143	173002	1,324,
SIDE	4 172047	100740	10070	10000				
	2 1998.1	2100.3	1976.1	1896.2	1901.0	1895.0	1884.6	1879.0
233-23		N.G.	1880.1	1914.5				
SPLITTE	-	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
237-24		N.G.	N.G.	1359.7	1550.9	1696.6	1754.7	1749 • 4
245	1750.8							
BOTTOM								
	8 N.G.	2015.4	1995.0	1987.3	1979.6	1946.4	1882.2	1844.8
309	1837.2							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE						_		
				N•G•	N.G.	-0.423	-0.328	N • G •
	0 N.G.	-0.177	-0.091					
NACELLE		3						
		-0.124	-0.126	-0.165	-0.190	-0.216	-0.170	N • G •
329								
CANOPY		-0.170	AL C	N. C	0.014			
	4 N.G.		N • U •	N. U.	0.010			
	CENTER LI		-11-614	-11-104	-0.574	-0.240	0.100	0-440
CANOPY		-06009	-0.010	-01100	-01514	-04540	A 1 1 0 0	0.440
	4 0.160	0.411						
J4J-J4	- 0.100	00411						

# 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 41 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA -0.01	BETA	MO 0 • 700	M/M* U•876		RP -0•0		
NR	PTC	· -			K	L	WC	M/M0
	2124				13.13		2.14	
	2124	1040	•0 100	,	13013	7021	2017	00,,,,
		TOTA	i PRESSU	RE RATI	US. PT/P	r o		
INLET F	RAKF	, , , , ,						
	08 1.0004	1.0001	1.0008	0.9613	0.8708	0.9931	1.0010	N.G.
	16 1.0010	0.9891	0.9902	1.0001	1.0008	1.0013	1.0010	1.0006
	24 0.9999			N.G.	1.0000	1.0002	1.0008	1.0010
	30 1.0010	N.G.	1.0008	1.0010		1.0008	1.0000	1.0010
	RY LAYER I		10000	10010	100011	140400		
131-13			0.9005	11.G.	0.8558	N.G.	0.9799	0.9378
_	2 0.8931		0.8476		•••			007310
	RY LAYER I		0004.0	000437				
	4 0.8322	0.7488						
147-1-	44 080322	0.7400						
		INI	ET STATE	C PRESS	URES. PS			
RAKE WA	Δ i .	7.14	LI OIAI.	CIRESS				
	6 1614.1	1662.1	1687.2	N.G.	1596.6	N.G.		
RAKE BL		100211	100102		137000	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	12 1489.3	1506.8	1520.7	1505.1	1480.3	N.G.		
TOP	12 140763	150000	132001	120201	140043	N•0•		
	20 1625.4	2133.1	N.G.	1914.2	1860.4	1883.5	1870.8	1862.3
	24 1854.7	1741.2	1742.0	1714.2	100044	100307	10/000	100203
	4 1054 1	1/4102	174200	113464				
SIDE	2 2051.4	2064.2	1896.2	1801.9	1814.9	1809.8	1791.4	1784.4
					101407	1007.0	1/7104	1/0404
	6 1777.9	N.G.	1761.2	1814.6				
SPLITTE		A) C	AL C	1271 4	1270 7	1241 7	1667 0	1411 0
	4 1531.1	N.G.	N.G.	13/100	1370.7	1361.7	1557.9	1611.0
245	1600.6							
BOTTOM	) () A) (	1041 2	1062 1	1024 0	1025 7	1070 6	1772 2	1700 6
		1401 • 5	1945.1	1734.7	1925.7	10/90	1//302	1709.5
309	1703.1							
			DD1 66115			*1)		
NA 651 1 5	* *OD	STAILC	PRESSUR	t COEFF	ICIENTS.	CP		
NACELLE		. 022	N. C	<b>N</b> . C	<b>A</b> 1 C	0 407	_() 222	<b>A</b> 1 C
	7 N.G.			N • C •	N.G.	-0.407	-0.322	N.G.
	NoGo	-0.177	-0.093					
NACELLE		( ) ( )	0.074	6 <b>137</b>	-0.141	0 300	-0.142	N. C
		-0.040	-0.074	-0.127	-0.161	-0.200	-0.102	N.G.
329								
CANOPY		-0 173	AL C	AL C	0 000			
330-33		-0.173	N a G a	N • G •	0.002			
	CENTER LI		-0 520	_0 800	-0-601	-0.344	0 1/3	A
		-0.091	-0.520	-0.000	-0.591	-0.300	0.162	0.432
CANOPY		0 400						
343-34	4 0.138	0.403						

#### INLET PRESSURE SURVEY 1/5 SCALE MODEL RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER. RUN PT 42 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA 0.00	BETA 3.89	M0 0•700	M/M* 0•862	LP 2∙00	RF -0•0		
NR	PTC				K	L	WC	M/MO
0.986		.2 1641				4.51	2.10	0.943
			-	-				
		TOTA	L PRESSU	JRE RATIO	S. PT/P	TO		
INLET R	AKE							
101-10	8 0.9998	1.0011	1.0011	0.9891	0.8453	0.9638	1.0000	N.G.
109-11	6 1.0007	0.9977	0.9056	0.9842	1.0011	1.0013	1.0007	1.0004
117-12	4 0.9510	0.9922	1.0011	N.G.	1.0007	1.0004	0.9855	0.9977
125-13	0 1.0007	N.G.	1.0008	1.0010	1.0000	1.0006		
BOUNDAR	Y LAYER	RAKE						
131-13	8 N.G.	0.9209	0.8800	N.G.	0.8332	N.G.	0.9644	0.9281
139-14	2 0.8849	0.8609	0.8388	0.8309				
BOUNDAR	Y LAYER	DUCT						
143-14	4 0.8275	0.7465						
		INL	ET STATI	C PRESSU	RES. PS			
RAKE WA								
_	6 1614.4	1663.5	1691.8	N.G.	1596.6	N.G.		
RAKE BU	_							
	2 1492.1	1509.4	1520.7	1507.4	1483.7	N.G.		
TOP								
	0 1463.9			1999.0	1967.0	1960.0	1940.8	1924.4
	4 1910.0	1726.8	1733.5	1732.7				
SIDE								
	2 1301.3	2109.4	2133.9	2071.5	2019.8	1981.4	1944.7	1912.8
233-23		N.G.	1759.2	1812.0				
SPLITTE			• • • • •					
-	4 1431.1	N.G.	N.G.	1290.0	1311.7	1371.0	1495.5	1574.6
245	1598.0							
BOTTOM							. =	
301-30		2059.7	2034.9	2019.0	2005.0	1934.1	1789.8	1697.2
309	1693.9							
			DDCCC		CICNEC	60		
	*00	STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE		1 (20	N. C	<b>A</b> 1. C	A1 C	. 0 . 4 6 0	0 2/1	A) 6
310-31			N.G.	N•G•	N.G.	-0.450	-0.341	N.G.
318-32		-0.190	-0.108					
NACELLE		-1 (0)	_1 120	-0-021	-0.861	-0 603	-0 206	N. C
321 <b>-</b> 32 329	8 N•G• -0.302	-1.401	-1.128	-0.931	-0.851	-0.002	-0.395	N.G.
CANOPY 330-33		-0.412	N.G.	N.G.	-0.059			
	CENTER LI		11.00	14808	-0.000			
-	2 U.590		-0-527	-(J-812	-0.594	-0-340	0.168	0.409
CANOPY		0,002	-04721	-04012	0 0 0 7 7 4	0 0 0 0 0	0.100	0-409
	4 0.119	0.321						
7 7 7 7								

#### INLET PRESSURE SURVEY

1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN	4	BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER,
PT	43	BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA		MO			RP	ВР	
_					1.50			
NR			P.			L		M/MO
0.991	2119	•5 1796	•1 177	76.0	10.21	3.06	1.84	0.824
						•		
		TOTA	L PRESSU	URE RATI	OS. PT/P	10		
INLET R								
_	8 1.0008		1.0010					N.G.
	6 1.0008		0.9462	0.9883				1.0000
	4 0.9720		1.0007			1.0000	0.9903	0.9971
125-13	0 1.0001	N.G.	1.0002	1.0000	0.9986	0.9996		
BOUNDAR	Y LAYER	RAKE						
131-13	8 N.G.	0.9075	0.8562	N.G.	0.3234	N.G.	0.9405	0.8998
139-14	2 0.8625	0.8448	0.8297	0.8248				
BOUNDAR	Y LAYER I	DUCT						
143-14	4 0.8277	0.7468						
		INL	ET STATI	C PRESS	URES. PS			
RAKE WA	LL							
201-20	6 1779.6	1811.2	1829.3	N.G.	1764.3	N.G.		
RAKE BU	LLET							
	2 1696.3	1.3	1713.8	1707.9	1691.5	N.G.		
TOP		-	_					
	0 1382.9	2109.1	N.G.	2041.3	2014.8	2008.6	1993.3	1982.0
	4 1972.1		1858.3					
SIDE		.03.42	103003	100000				
	2 1203.6	2082.8	2139.8	2104.8	2065.0	2034.8	2006.3	1982.3
	6 1961.7			1910.9				
SPLITTE		1,000	1000	1,100,				
	4 1571.8	N.G.	N.G.	1500.6	1537.3	1596.6	1698.5	1746.8
245	1758.7	NOO		130000	100100	137000		114000
BOTTOM	179067							
	A N.G.	2089.9	2070.4	2056.6	2045.6	1990.9	1892.7	1922.4
		200767	201004	2030.0	204780	177067	107201	103300
309	1827.9							
			20546	E 40555				
		STATIC	PRESSUR	E COEFF	ICIENTS.	CP		
NACELLE	_							
310-31				N.G.	N.G.	-0.456	-0.345	N.G.
318-32		-0.187	-0.108					
NACELLE								
321-32		-1.395	-1.172	-1.016	-0.922	-0.724	-0.413	N.G.
329	-0.298							
CANOPY	SIDE							
330-33		-	N.G.	N.G.	-0.037			
	CENTER LI							
335-34	2 0.591	-0.080	-0.522	-0.798	-0.579	-0.352	0.200	0.414
CANOPY	SIDE							
343-34	4 0.149	0.323						

# 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 44 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

		BETA	<b>MO</b>	M/M*	LP 1•00		BP	
NR	PTC				Κ	L	WC U. E	M/M0
0.995	2129		•1 194		4.61	1.76	-	
					4001	20,0	• • • • • • • • • • • • • • • • • • • •	
		TOTA	L PRESSU	RE RATIO	S. PT/P	ТО		
INLET F	RAKE							
101-10	08 1.0001	1.0008	1.0005	0.9961	0.9549	0.9821	1.0005	N.G.
109-11	16 1.0004	<b>∪•9987</b>	0.9769	0.9903	1.0008	1.0008	1.0001	1.0000
117-12	24 0.9891	0.9932	1.0004	N.G.	1.0000	0.9998	0.9945	0.9968
125-13	30 1.0001	N.G.	1.0002	0.9998	0.9987	0.9998		
BOUNDAR	RY LAYER I	RAKE						
131-13	N.G.	0.8468	0.7884	N.G.	0.7816	. N.G.	0.8592	0.8254
139-14	2 0.8070	0.8016	0.7973	0.7965				
ROUNDAR	RY LAYER I	DUCT						
143-14	4 0.8208	0.7438						
	•							
		INL	ET STATI	C PRESSU	JRES PS			
RAKE WA								
	6 1949.5	1965.4	1975.5	N.G.	1938.0	N.G.		
RAKE BL								
	12 1905.2	1909.4	1912.0	1911.7	1900.7	N.G.		
TOP					5	5446.5		
	20 1308.9	2097.2	N.G.	2080.8	2062.8	2060.5	2054.3	2048.6
	24 2043.6	1987.7	1987.1	1986.5				
SIDE						220		
	12 1094.3	2034.5	2131.1	2131.4	2111.0	2094 • 4	2078.0	2061.4
	6 2052.9	$N \bullet G \bullet$	2001.5	2016.7				
SPLITTE								
	4 1781.8	N.G.	N.G.	1727.1	1794.8	1856.9	1900.7	1920.7
245	1930.3							
BOTTOM		23.64	2224 2	2110 (	2101 (	2011	2000 0	1074
			2115.2	2110,6	2101.4	2066 • 4	2008.3	1976.3
309	1970.9							
		CTATIC	DDECCUD	L CALEET	CIENTS.	<b>C</b> D		
NACELIE	TOD	STATIC	PRESSUR	E COEFFA	CIENIS	CP		
NACELLE		-1 622	N - G	N.G.	N.G.	-0.442	-0.252	AL C
				N.O.	N.G.	-01462	-06333	N.G.
	0 N.G.	-0.191	-0.109					
NACELLE		-1 202	-1-102	-1-077	-1.034	-0.933	-0.441	AL C
_	-0.294	-10203	-1.105	-10077	-10034	-0.022	-0.461	N.G.
CANOPY								
	4 NoGo	-0.404	N.G.	NAGA	0.041			
	CENTER LI		.,,,,,,	1100	0 0 0 7 1			
	_		-0-514	-U_784	-0.553	-0.212	0.260	0.350
CANOPY			00014	31.04	V 4 7 7 3	00010	01200	0.500
	4 0.219	0.187						
J-7-3-	4 00217	0.101						

## 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 45 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

4	ALPHA 0.00	BETA	M0	M/M*	LP 1•00			
NR		PSC			K	L	_	M/MO
		•0 1975			1.73	1.29		
00,00	2107	27.5	1,0		10.5	100,		
		TOTA	L PRESSU	RE RATIO	S. PT/P	TO		
INLET RA	<b>KE</b>							
	0.9806	0.9853	U•9891	0.9888	0.9744	0.9807	0.9818	N.G.
_	0.9884		0.9848	0.9847	0.9831	0.9864	0.9872	0.9907
117-124	0.9880	0.9861	0.9850	N.G.	0.9858	0.9898	0.9895	0.9873
125-130	0.9876	N.G.	0.9867	0.9895	0.9907	0.9897		
BOUNDARY	LAYER	RAKE						
131-138	N.G.	0.7802	0.7827	N.G.	0.7867	N.G.	0.7931	0.7886
139-142	2 0.7884	0.7912	0.7944	0.7983				
BOUNDARY	LAYER I	DUCT						
143-144	0.8208	0.7928						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WAL	. —							
	1969.7	1981.3	1988.1	N.G.	1961.0	N.G.		
RAKE BUL	_		= =					
	1933.0	1937.5	1940.1	1936.4	1927.9	N.G.		
TOP								
	1694.4		N.G.	1970.8	1971.4	1987.5	1994•6	2002.8
	2005.0	1994.8	1996.0	1994.6				
SIDE		2010						
	1765.0	2060.4	2022.5	1995.1	2007.8	2012.4	2010.1	2012.1
	2011.2	N.G.	2005.6	2018.0				
SPLITTER		A) C	<b>A</b> 1. C	1770 7	1000 7	1004 5	1020 2	1044 0
	1859.0	N.G.	N.G.	1770•7	1838.7	1400.2	1939.2	1944.9
245	1950.5							
BOTTOM 301-308	N.G.	1078.1	2022.0	2042.6	2051.8	2055.4	2018.5	1002.7
309	1986 • 3	197011	202349	2042.0	203100	2033.4	201003	199361
309	190003							
		STATIC	DDECCHD	E COEFEI	CIENTS.	СР		
NACELLE	TOP	SIAIIC	PRESSUR	COLIT	CIENTS	Cr		
310-317		-0.849	NaGa	NaGa	N.G.	-0.388	-0.294	N.G.
318-320			-0.067				00274	
NACELLE		00151	00001					
321-328		-0.668	-0.530	-0.472	-0.440	-0.377	-0.234	N.G.
329	-0.239	- 7 0 0						
CANOPY S								
		-0.229	N.G.	N.G.	0.121			
CANOPY C								
		-0.073	-0.447	-0.606	-0.421	-0.190	0.236	0.148
CANOPY S	IDE							
343-344	0.218	0.022						

#### CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 46 BOUNDARY LAYE: DUCT OPEN. L/H ENGINE OPERATIVE

ALP	H <b>A</b> U0	BETA -0.12	M0 0.600	M/M*		RP -0•0		
NR O	PTC				K	L	WC O. E	M/MO
J.995		8 1872	_	_	3.37	2.18		
••///	21216	1012	• 4 100	1.04	J • J ·	2410	100	00012
		TOTA	PRESSU	RE RATIO	DS. PT/P	TO		
INLET RAKE		1017	L . KESSO			. 0		
101-108 0	49989	0.9990	0.9988	0.9776	0.9661	0.9776	0.9993	N.G.
109-116 0		0.9880	0.9987	0.9898	0.9993	0.9996	0.9989	0.9970
117-124 0		0.9962	0.9988	N.G.	0.9987	0.9987	0.9989	0.9988
125-130 0		N.G.	0.9989			0.9988		
BOUNDARY L				00,,,0				
131-138			0.9248	N.G.	0.8819	N.G.	0.9880	0.9597
139-142 0		_	0.8819		00017	11000		00,000
BOUNDARY L	-		0.0017	000174				
143-144 0	_	0.8095						
143 144 0	0012	0.0000						
		INI	FT STATE	CPRESSI	JRES. PS			
RAKE WALL			LI SIAIL	CIRESSI				
201-206 1	859.0	1883.9	1896.6	N.G.	1850.3	N.G.		
RAKE BULLE				.,,,,,	203003	.,,,,,		
207-212 1		1802.9	1810.5	1805.1	1792.7	N.G.		
TOP				100001	2.724.			
213-220 1	523.3	2131.5	N.G.	2041.2	2014.6	2011.2	2000.8	1993.4
221-224 1	_	1922.0	1922.0	1917.8				2000
SIDE			.,	171.00				
225-232 1	712.5	2130.6	2108.9	2047.1	2022.2	2004.2	1988 • 1	1971.7
233-236 1		N.G.	1932.2	1960.1			1,000	17.10.
SPLITTER		,,,,,,	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
237-244 10	193.6	N.G.	N.G.	1486.9	1652•1	1767.0	1817.0	1827.7
	328.C	,,,,,,		1.0007	107101		202.00	101/4/
воттом	22000							
301-308	N.G.	2061.3	2046.2	2037.2	2029.8	1996.5	1935.9	1901.9
	393.5	2001.5	2.04012	203142	202700	1770 5	175567	170167
507	37302							
		STATIC	PRESSURI	F CULFFI	CIENTS.	CP		
NACELLE TO		STATE	· NEGOOK		CICATO	••		
310-317		-1.304	Naúa	N.G.	N.G.	-0.389	-0.292	N.G.
318-320			-0.071	1,000	11000	00307	00272	1100
NACELLE SI		0,171	••••					
321-328		-0.709	-0-537	-0.453	-0.437	-0.387	-0-254	N.G.
	258	01107		00777	0 4 7 7 7	0 1 30 1	V1234	14.0.
CANOPY SIDE	-							
330-334		-0.247	N.G.	NaGa	-0.008			
CANOPY CEN			.,,,,,,	1100				
335-342			-0.476	-0.661	-0.508	-0.322	0.167	0.432
CANOPY SIL		.,						V + 7 Z
343-344		0.368						
J7J J77 \		<b>4</b> 700						

#### INLET PRESSURE SURVEY

1/5 SCALE MODEL

CTOL FLIGHT REGIME

RYAN VZ-11 AIRCRAFT

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER. BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA	BETA	мо	M/M*	LP		вР	
	0.00	-0.13	0.600	0.800	2.00	-0.03	OPE	N
NR	PTC	PSC	PS	88	K	L	WC	M/MO
0.995	2126	4 1750	.5 172	27.2	6.89	3.24	1.96	0.950
	=	TOTA	L PRESSU	KE KATI	US. PT/P	10		
INLET R								
	8 1.0004		1.0010	0.9698	0.9326	0.9731		N.G.
	6 1.0008		0.9972	0.9891	1.0008	1.0012	1.0007	0.9963
	4 1.0004			N.G.	1.0007	1.0008	1.0007	1.0008
	0 1.0010	N.G.	1.0006	1.0008	1.0008	1.0011		
	Y LAYER I							
	8 N.G.		0.9394		0.8924	N.G.	0.9967	0.9782
139-14	2 0.9408	0.9171	0.8934	0.8859				
BOUNDAR	Y LAYER !	DUCT						
143-14	4 0.8816	0.8096						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	LL							
	6 1727.5	1767.8	1787.9	N.G.	1719.0	N.G.		
RAKE BU	-	2.0.0						
	2 1636.0	1649.3	1655.5	1650.7	1634.0	N.G.		
TOP	2 103000	104763	103303	10200.	203400			
	0 1604.1	2133.5	N.G.	1994.3	1965.8	1962.1	1947.4	1938.4
	4 1929.1	1822.1	1826.6	1821.8	170760	170241	174144	173064
SIDE	4 172761	102201	1020.0	102180				
225-23	2 1821.8	2138.8	2072.5	1989.8	1962.7	1941.5	1919.7	1901.1
233-23		N•G•	1841.8	1883.0	170247	174167	471701	170101
		N.O.	1041.0	100340				
SPLITTE		A) C	A) G	1200 5	1/22-6	1504 6	1474.7	1701 0
237-24		N.G.	N.G.	1308.5	143204	1584.6	10/40/	1701.8
245	1703.5							
BOTTOM				0.000				
301-30		2027.5	2010.4	2002.2	1992•4	1945.9	1853.8	1800.1
309	1793.7							
		674716	DOCECUO	C 605551	CICATO	60		
A1 A C ( ) . C	TOD	STATIC	PRESSUR	E COEFF1	CIENIS	CP		
NACFLLE		-0 040	<b>A</b> 1 /	A) (	AL C	-0.274	-0 296	A) C
310-31				N.G.	N.G.	-0.376	-0.205	N.G.
318-32		-0.150	-0.071					
NACELLE				0.450				<b>A</b>
321-32		-0.583	-0.455	-0.422	-0.406	-0.364	-0.245	N.G.
329	-0.252							
CANOPY	-			7. 2	2			
330-33			N.G.	N.G.	-0.021			
	CENTER LI							
	2 0.568	-0.088	-0.478	-0.666	-0.516	-0.337	0.143	0.418
CANOPY	SIDE							
343-34	4 0.116	0.359						

RYAN VZ-11 AIRCRAFT

#### 1/5 SCALE MODEL

#### CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 48 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

ALPHA -4.02	BETA -0-13	M0 0•601	M/M* 00806	LP 2•00	RF	BP	
NR PT	_			K	L	WC U. L	M/M0
	2.8 1738	-			3.59		
20,7,5	2.50				3022	2000	
	TOTA	AL PRESSU	RE RATIO	S. PT/P	To		
INLET RAKE							
101-108 1.000	5 1.0008	1.0008	0.9661	0.8908	0.9835	1.0011	N.G.
109-116 1.000	7 0.9795	0.9822	0.9957	1.0010	1.0013	1.0008	0.9971
117-124 0.998	4 0.9995	1.0008	N.G.	1.0011	1.0008	1.0005	1.0010
125-130 1.000	8 N.G.	1.0007	1.0010	1.0008	1.0008		
BOUNDARY LAYER	RAKE						
131-138 N•G	. 0.9684	0.9774	N.G.	0.9146	N.G.	1.0001	0.9987
139-142 0.980	5 0.9538	0.9187	0.9040				
BOUNDARY LAYER	DUCT						
143-144 0.892	0 0.8131						
	INL	ET STATI	C PRESSU	JRES. PS			
RAKE WALL							
201-206 1717.	3 1756.5	1777.4	N.G.	1701.2	N.G.		
RAKE BULLET							
207-212 1622.	4 1635.1	1644.7	1636.3	1618.8	N.G.		
TOP	_						
213-220 1694.			1976.8	1954•2	1953.3	1941.2	1932•4
221-224 1923.	1 1812.5	1816.7	1811.3				
SIDE	_						
225-232 1732.		2089.7	2005.0	1972.0	1946.6	1921.4	1900.8
233-236 1886.	7 N.G.	1832.2	1875.1				
SPLITTER	_	=					
237-244 1559.		N.G.	1439.7	1468.0	1510.3	1641.3	1704.0
245 1702.	3						
BOTTOM	_						
	• 2016•2	2002.7	1998.8	1990•7	1942.8	1846.9	1789.1
309 1783.	5						
- 11	STATIC	PRESSUR	E COEFFI	CIENTS	CP		
NACELLE TOP	0 .03	N 6	۸۰ ۵	<b>A</b> 1	0 201	6 263	A1 -
310-317 N.G			N•G•	N.G.	-0.304	-0.251	N.G.
318-320 N.G	• -0 • 1 4 8	-0.078					
NACELLE SIDE		0.503	0 ( ) 0	0 101	0 4 5 5	() 654	<b>A</b> . <b>C</b>
321-328 N•G		-0.581	-0.512	-0.494	-0.453	-0.296	N.G.
329 -0.26	<b>b</b>						
CANOPY SIDE	-0.100	Ai (	Ai C	-0 020			
		N.G.	N.G.	-0.028			
CANOPY CENTER		0 035	0 101				
335-342 0.61	3 0.004	-0.375	-0.581	-0.465	-0.306	0.146	0.449
CANOPY SIDE	0 6 534						
343-344 U.11	8 0.374						

### 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, L/H ENGINE OPERATIVE

	ALPHA -4.02	BETA	MO	M/M*	LP	RP	BP	•
	-4.02	-0.13	0.601	0.695	1.50	-0.0	3 OPE	.N
NR					K			
U.996	2130	•1 1865	•4 184	9.6	3.54	2.25	1.71	0.825
		7074						
•		IOTA	L PRESSU	RE RAIL	JS. PT/P	10		
INLET R				0 0757	0.044			A1 6
	8 1.0004				0.9655	_		N.G.
	6 1.0005				1.0005		1.0004	
	4 1.0006				1.0002		1.0005	1.0004
	10 1.0001 Y LAYER F		1.0005	1.0007	1.0001	1.0007		
	8 NoGo		0.0602	No.	0.9128	AL. G.	1 - 0001	0.9965
	2 0.9726			0.9037		14.00	1.0001	0.7707
	Y LAYER (		0.7130	00,0001				
	4 0.8927	- · -						
175 17	4 0 0 0 7 2. 1							
		INL	FT STATI	c PRESSI	JRES. PS			
RAKE WA	a L			•				
	6 1850.9	1876.8	1890.9	N.G.	1842.9	N.G.		
RAKE BU		=						
	2 1785.9	1/93.5	1800.0	1796.6	1783.7	N.G.		
TOP								
213-22	0 1595.9	2133.2	N.G.	2031.8	2009.5	2007.0	1997.4	1990.3
221-22	4 1984.1	1915.8	1916.1	1911.3				
SIDE								
225-23	2 1607.5	2135.5	2123.3	2062.0	2031.0	2008.7	1988•9	1973 • 4
233-23	6 1962.9	N.G.	1927.6	1956.2				
SPLITTE								
	4 1677.5	N.G.	N.G.	1459.5	1632.9	1757.4	1808 • 8	1818.7
_	1821.5							
BOTTOM								
301-30		2053.6	2042.6	2036.2	2030.3	1996.3	1934.1	1897.8
309	1891.7							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE		-1. H34	ALL Æ	A) C	N C	-0 222	-0.267	A) C
310-31		-0.836	N.U.	N.G.	N.G.	-0.322	-0.257	N.G.
318-32		-0.148	-0.076					
NACELLE 321-32		-0.884	-0.640	-0.561	-0.536	-0.472	-0.303	N C
329	-0.267	-0.004	-0.040	-0.001	-0.536	-06472	-0.302	N.G.
CANOPY								
330-33		-0.189	N.G.	N.G.	-0.015			
	CENTER LI							
	2 0.615	0.006	-0.370	-0.572	-0.455	-U-296	0.168	0.477
CANOPY								•
	4 0.138	0.400						

# 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 50 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

		BETA	MO		LP		_	
					1.00			
NR		PSC		B	K	L	WC	M/MO
<b>0∙998</b>	2134	•6 1992	•5 198	5 • 2	1.83	1.52	1.29	0.626
		TOTA	ו ממככנו	IDE DATIC	OS. PT/P	T ()		
TAUCT D	AVE	1014	L PRESSU	WE KALL	731 P17P	10		
INLET R	8 1.0000	1 0002	1 0005	0.9897	0.0025	0.0004	1 0004	AL C
			1.0005		- <del>-</del>	0.9896	1.0004 0.9994	N.G.
	6 U.9999 4 1.0004		1.0000	0.9951	1.0001	1.0008		1.0000
			-	N.G.	1.0000	1.0002	1.0000	1.0002
	0 1.0004		1.0004	1.0001	1.0004	1.0006		
	Y LAYER I		0.0403	N. C	0.00(1	A) C	0.9986	0.9850
131-130		0.9834	0.9493		0.9061	N.G.	0 9 9 9 0 0	0.7650
	2 0.9509 Y Layer 1		0.9050	0.0995				
143-14	4 0.8931	0.8127						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WAI	LL							
201-20	6 1987.8	2000.2	2007.3	N.G.	1974.8	N.G.		
RAKE BUI	LLET							
207-21	2 1952.5	1955.9	1957.9	1957.6	1949.1	N.G.		
TOP								
213-22	0 1455.3	2123.3	N.G.	2090.8	2072.2	2068.8	2062.3	2057.5
221-22	4 2054.7	2021.7	2021.4	2016.9				
SIDE								
225-23	2 1409.3	2101.6	2139.7	2116.8	2094.0	2077.3	2062.3	2054.7
233-236	5 2047.4	N.G.	2026.8	2041.2				
SPLITTER	₹							
237-24	4 1879.4	N.G.	N.G.	1769.8	1861.6	1934.4	1963.2	1966.0
245	1967.7							
BOTTOM								
301-30	N.G.	2059.6	2087.4	2084.0	2076.9	2059.0	2028.3	2008.3
309	2005.2							
		STATIC	PRESSUR	L COLFFI	CIENTS.	CP		
NACELLE	TOP							
	7 N.G.			N.G.	N.G.	-0.346	-0.263	N.G.
318-32	N.G.	-0.148	-0.075					
NACELLE								
321-328		-1.110	-0.707	-0.641	-0.595	-0.499	-0.311	N.G.
329								
CANOPY S		_						
	N.G.		N.G.	N.G.	0.002			
-	CENTER L		= .					
		0.011	-0.363	~·····································	-0.442	-0.278	0.208	0.503
CANOPY S								
343-344	0.171	0.433						

## 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PI 51 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA 4.00		M0 0.598	M/M* U•474				N
NR	PTC				K	L	WC	M/MO
0.965	2062				2.26		1.16	0.565
		TOTA	L PRESSU	RE RATIO	OS. PT/P	TO		
INLET R		0						
	8 0.9578				0.9533	0.9604	0.9593	
	6 0.9718				0.9587	0.9611	0.9679	0.9707
	4 0.9635				0.9648	0.9685	0.9652	0.9641
	0.9624	N•G•	0.9651	0.9681	0.9685	0.9666		
	LAYER I		0 7470	A) C	0 7774	A) C	0 7/26	0.7460
131-13		0.8973	0.7678		0.7776	N.G.	0.7636	0.7659
	2 0.7687		0.7774	0.7808				
	14 LAYER ( 4 0.7987	-						
145-14	4 0 1 7 5 1	0.1094						
		TNI	ET STATI	C PRESSI	JRES. PS			
RAKE WA	ot 1	1146	LI SIAII	C FRESSO	INCST PS			
	6 1937.2	1950.2	1958.4	N.G.	1935.0	N.G.		
RAKE BL		277242			1,3,000			
	2 1903.9	1907.6	1907.0	1902.0	1898.6	N.G.		
TOP								
	0 1766.7	2053.6	N.G.	1861.3	1877.1	1908.2	1926.0	1938.9
221-22	4 1947.7	1953.9		1958.7				
SIDE								
225-23	2 182+.9	1929.1	1872.9	1876.5	1924.5	1945.4	1953.3	1962.9
233-23	6 1967.2	N.G.	1969.4	1981.9				
SPLITTE	R							
237-24	4 1825.4	N.G.	N.G.	1761.3	1813.6	1872.9	1905.6	1913.2
245	1923.4							
BOTTOM								
		1847.4	1908.8	1942.8	1963.8	2009.1	1990.7	1962.5
309	1955.4							
	-00	STATIC	PRESSUR	E COEFFI	CIENTS	CP		
NACELLE		0.710		<b>A.</b>	A	0 400		
310-31		-0.789	N.G.	N.G.	N.G.	-0.432	-0.309	N.G.
318-32		-0.138	-0.051					
NACELLE	_	-0.424	0.284	25.0	224			N. C
321-32		-0.436	-0.388	-0.359	-0.336	-0.304	-U.189	N.G.
329	-0.193							
<b>CANOPY</b> 330-33		-0.269	N.G.	N•G•	0.134			
	CENTER LI		14.6.6	14.00	0 1 1 34			
	2 0.532		-0-513	-0.632	-0.377	-421194	0.142	0.017
CANUPY								00011
_	4 0.150	-0.075						
ノマフーフサ	4 08130	-01019						

RUN 4 BASIC CANOPY. 24E OVAL INLEI. LONG SPLITTER.
PT 52 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	2 50011	DAKT EATE	K DOCI	Or Little E711	- LITOTILE .	Jr LINA 1 1 V	•	
	ALPHA	RETA	Mo	M/M*	LP	RP	вР	
		-0.15	-		· <del>-</del>			
NR	PTC		_		K	L		M/M0
0.993		9 1876					1.65	0.802
				_ • -				
		TOTA	L PRESS	URE RATIO	S. PT/P	ГО		
INLET	RAKE							
101-1	08 0.9921	0.9928	0.9905	0.9914	0.9703	0.9820	0.9949	N.G.
109-1	16 0.9911	0.9958	0.9927	U•9897	0.9963	0.9947	0.9909	0.9965
117-1	24 0.9965	0.9939	0.9972	N.G.	0.9911	0.9964	0.9984	0.9978
125-1	30 0.9984	N.G.	0.9944	0.9971	0.9994	0.9996		
BOUNDA	RY LAYER I	RAKE						
131-1	38 N.G.	0.8477	0.7940	N.G.	0.7915	N.G.	0.8215	0.8096
139-1	42 0.8041	0.8037	0.8029	0.8037				
BOUNDA	RY LAYER I	DUCT						
143-1	44 0.8252	0.7941						
		INL	ET STAT	IC PRESSU	RES. PS			
RAKE W	ALL							
201-2	06 1864.2	1886.8	1898.1	N.G.	1855.5	N.G.		
RAKE B	ULLET							
207-2	12 1802.7	1809.2	1817.1	1810.0	1797.3	N.G.		
TOP								
	20 1611.5			1982.0	1962.2	1968.7	1965.9	1965.9
	24 1964.2	1925.0	1923.5	1917.0				
SIDE								
	32 1932.9		2015.3		1965.0	1964.5	1957.7	1953.2
233-2		N.G.	1933•4	1956.6				
SPLITT		_						
_	44 1685.8	N.G.	N.G.	1518.7	1649•4	1768•3	1824•4	1830.1
245	1834.9							
BOTTOM								
301-3		2011.4	2038.5	2046.4	2045 • 9	2019.6	1949.0	1909.1
309	1901.4							
			DDECCU	05 COLEET	CICNEC	<b>6</b> D		
	r	STATIC	PRESSU	RE COEFFI	CIENIS	CP		
NACELL		1 143	No. C	A1 - 6	<b>A</b> 4 (	0 43 1	0 200	A) C
310-3			N.G.	N.G.	N. G.	-0.432	-0.308	N.G.
318-3		-0.140	-0.053					
NACELLI		0 (22	0 261	0 324	0 222	0 202	0 100	N. 6
321-3		-0.422	-0.351	-00334	-0.322	-0.283	-0.183	N.G.
329	-0.234							
CANOPY		-0 294	N.G.	N.G.	0.000			
330-3			14.0.0	14 • Q •	0.092			
	CENTER LI 42 0.528		-0.550	=0.704	-0.501	-0.273	0.219	0.225
		-01104	-0,000	-06704	-0.501	0 • 2 / 3	00217	0.225
CANOPY	44 0.202	0.139						
345-34	14 06202	00137						

### 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 53 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA	BETA	МО	M/M*	LP	RP		
***	4.00	-0.15			2.00		3 OPE	
NR 0 005	PTC				K	L	WC	M/MO
0.995	2126	·8 1762	•0 173	19.2	6.54	3.12	1.94	0.941
		TOTA	L PRESSU	JRE RATIO	OS. PT/P	TO		
INLET F	* *							
	8 1.0004		1.0007	0.9757	0.9360	0.9768	1.0007	N.G.
	6 1.0007		0.9957	0.9916	1.0004	1.0007	1.0008	0.9972
	24 1.0001		1.0008	N.G.	1.0007	1.0004	1.0008	1.0001
	0 1.0008	N.G.	1.0011	1.0008	1.0007	1.0011		
	RY LAYER I							
131-13			0.8865	N.G.	0.8639	N.G.	0.9322	0.8962
139-14	2 0.8695	0.8585	0.8525	0.8507				
BOUNDAR	RY LAYER I	DUCT						
143-14	4 0.8639	0.8052						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	LL							
201-20	6 1742.0	1778.1	1797.1	N.G.	1730.7	N.G.		
RAKE BL	ILLET							
207-21	2 1651.4	1662.7	1673.1	1664.3	1646.8	N.G.		
TOP								
213-22	0 1538.7	2135.0	N.G.	2004.0	1971.0	1965.6	1951.2	1941.3
	4 1931.7	1832.1	1834.9	1829.5				
SIDE								
-	2 1917.9	2130.8	2044.7	1966.2	1949.5	1932.6	1914.8	1897.3
2 <b>3</b> 3 <b>-2</b> 3		N•G•	1849.3	1889.4		2,3200		107.03
SPLITTE		1,000	104743	100744				
	4 1577.1	N.G.	N.G.	1339.9	1461.3	1594.6	1690.6	1714.3
245	1714.6	,,,,,,		133767	140103	157410	20,000	111403
BOTTOM	1714.0							
301-30	8 N.G.	2048 - 0	2022.1	2009.6	1998.9	1950.0	1861.0	1809.8
		2040.0	202261	200760	177047	1930.0	1991.0	1009.0
309	1802.7							
			20555410					
	<b>TOD</b>	STATIC	PRESSUR	E COEFFI	CIENTS	CP		
NACELLE		-1 274	<b>A</b> 1 /	A1 6	A1 C	-0 (22	0 000	۸. ۵
310-31		=	N.G.	N.G.	N.G.	-0.423	-0.300	N.G.
318-32		-0.138	-0.051					
NACELLE		0.000	0.010		0 005	0 200	0.103	
321-32		-0.388	-0.313	-0.306	-0.305	-0.280	-0.197	N.G.
329	-0.246							
CANOPY			A1 - 6					
330-33			N.G.	N.G.	-0.002			
_	CENTER LI							
335-34		-0.167	-0.559	-0.725	-0.539	-0.336	0.166	0.361
CANOPY								
343-34	4 0.128	0.325						

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 54 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RP	BP	
	0.00	-4.09	0.599	0.799	2.00	-0.03	OPEN	l
NR		PSC				L		
0.996	2127	•5 1754	• 0 173	30 <b>•</b> 7	7.95	3.17	1.96	0.950
		TOTA	י סטבננו	IDE DATI	C. DT/D	<b>.</b> .		
TAILET D	AVE	IOIA	L PRESSU	KE KAIIC	OS. PT/PT	10		
INLET R	8 1.0006	1.0011	1.0000	0.9647	0.9222	0.9937	1.0011	N. G.
	6 1.0001				1.0011	_	1.0008	0.9998
	4 1.0006			N•G•			1.0011	1.0007
	0 1.0008			1.0011		1.0001	100011	1.0001
	Y LAYER F		1.0010	1.0011	1.0010	1.0011		
	8 N.G.		0.9425	N.G.	0.8966	N.G.	0.9970	0.9794
	2 0.9427		0.8947					
	Y LAYER (							
	4 0.8791							
		INL	ET STATI	C PRESSU	JRES PS			
RAKE WA	LL							
-	6 1734.1	1770.5	1789•4	N.G.	1721.9	N.G.		
RAKE BU								
	2 1640.9	1653.3	1660.7	1654.2	1638•4	N.G.		
TOP								
	0 1666.6			1960.2	1931.2	1932.9	1922•4	1915.6
	4 1910.0	1830.4	1832.3	1822.5				
SIDE	2 2074 0	2074 0	1048 2	1966 1	1875.0	1071 0	1860.9	1852.7
	2 2074.0			1865•1 1884•9	10/500	10/109	100009	100201
	6 1848.2	N.G.	104565	100403				
SPLITTE	K 4 1618.3	N. G	N.G.	1470.9	1503.7	1542.1	1702.7	1718.3
		14.0.	11.00	147009	170367	174241	110281	111043
245 BOTTOM	1710.7							
301-30		1978.4	1969.7	1965.9	1960.5	1926.5	1851.0	1803.7
309	1797.8	177044	17070	1,000	170003	172003	103100	100367
507	217140							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP	•						
310-31		-0.693	N.G.	N.G.	N.G.	-0.366	-0.288	N.G.
318-32		-0.157	-0.077					
NACELLE	SIDE							
321-32	8 N.G.	-0.032	-0.062	-0.112	-0.143	-0.177	-0.148	N.G.
329	-0.216							
CANOPY	SIDE							
330-33		-0.156	N.G.	N.G.	0.004			
	CENTER LI							
335-34		-0.096	-0.478	-0.661	-0.514	-0.335	0.141	0.422
CANOPY	-							
343-34	4 0.126	0.387						

### 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 55 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

D

	ALPHA 0.00	BETA -4.09	MÖ 0 • 600	M/M* 0.696	LP 1•50	RP -0•0		
NR	PTC	-			K	L	WC	M/MO
0.999	2135		.2 184		2.17	2.01	1.71	0.828
		TOTA	L PRESSU	RE RATIO	S. PT/P	TO		
INLET								-7
	08 1.0004		1.0010	0.9795	0.9901	0.9959	1.0006	N.G.
109-1	16 1.0001		1.0007	0.9993	1.0010	1.0012	1.0008	1.0007
	24 1.0008		1.0007	N.G.	1.0006	1.0007	1.0007	1.0008
125-1	30 1.0008	N.G.	1.0008	1.0010	1.0008	1.0008		
BOUNDA	RY LAYER							
131-1	38 N.G.	0.9646	0.9304	N.G.	0.8942	N.G.	0.9917	0.9655
139-14	42 0.9279	0.9068	0.8884	0.8844				
BOUNDA	RY LAYER	DUCT						
143-14	44 0.8794	0.8099						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE W	**							
	06 1855.8	1880.3	1893.9	N.G.	1851.0	N.G.		
RAKE BU								
207-2	12 1790.0	1801.0	1780.1	1799.3	1791.7	N.G.		
TOP								
	20 1590.1	2138.7	N.G.	2013.9	1984.2	1984.8	1976,9	1970•7
221-22	24 1969.3	1919.9	1924.4	1915.9				
SIDE								
225-23	32 2023.5	2106.2	2008.0	1943.0	1945.3	1936.2	1906.0	1928.3
233-23	36 1924.4	N.G.	1933.1	1960•2				
SPLITTE	R							
237-24	4 1729.3	N.G.	N.G.	1495.8	1635.5	1788.6	1834.0	1826.4
245	1826.1							
BOTTOM								
301-30	08 N.G.	2023.7	2013.2	2009.4	2003.2	1978.7	1933•4	1904.5
309	1899•4							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-3	17 N.G.	-1.012	N.G.	N.G.	N.G.	-0.382	-0.293	N.G.
318-32	20 N.G.	-0.159	-0.078					
NACELLE	SIDE							
321-32	28 N.G.	-0.108	-0.098	-0.141	-0.168	-0.193	-0.154	N.G.
329	-0.219							
CANOPY	SIDE							
330-33	84 N.G.	-0.154	N.G.	N.G.	0.014			
	CENTER L							
335-34	2 0.559	-0.093	-0.473	-0.657	-0.505	-0.326	0.164	0.437
CANOPY	SIDE							
343-34	4 0.140	0.407			•			

#### INLET PRESSURE SURVEY

1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

#### CTOL FLIGHT REGIME

RUN & BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 56 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA	BETA	M0	M/M*	LP	RP		
110	0.00	-4.09		0.523	1.00	-		-
NR 1 (100	PTC				K	L	WC	M/MO
1.000	2137	•1 1990	•2 198	9.4	0.96	1.10	1.28	0.621
		TOTA	1 DDECC	IDC DATI	S. DT/D	7.0		
TALLET	14 V E	TOTA	L PRESSU	INE MAIL	DS. PT/P	10		
INLET F		0.0006	1 0007	0.0015	0.0053	2 0000	1 0004	AL C
	08 0H9999		1.0006	0.9915	0.9953	1.0000	1.0008	N.G.
_	8 0.9999		1.0006	0.9915	0.9953	1.0000	1.0008	N.G.
	6 1.0007	_	1.0008	1.0010	1.0005	1.0011	1.0006	1.0008
	4 1.0005		1.0010	N.G.	0.9994	1.0008	1.0008	1.0008
	0 1.0008	N.G.	1.0008	1.0008	1.0008	1.0010		
	RY LAYER I							
131-13		0.9450	0.8935	N.G.	0.8752	N.G.	0.9535	0.9140
	2 0.8834	0.8726	0.8693	0.8691				
	RY LAYER I	· -						
143-14	4 0.8802	0.8089						
RAKE WA	\1.4	INL	ET STATI	C PRESSU	JRES. PS			
	6 1990.5	2004.6	2010.5	N.G.	1987.1	N.G.		
RAKE BL		200,00	20100		170101			
	2 1958.3	1961.1	1961.9	1963.4	1954.9	N.G.		
TOP	2 193003	170101	170107	170344	173467	11.00		
	0 1448.3	2132.8	N.G.	2079.4	2056.2	2054.0	2047.2	2044.7
	24 2043.5	2027.2	2026.0	2021.5	203012	2034.0	204102	204461
	4 204365	202102	2020.0	202165				
51DE	2 1913.7	2137.3	2089.6	2043.0	2034.5	2030.6	2020.4	2020.7
	6 2021.0	N•G•	2029.7	2042.1	203407	2030.0	202084	202001
		N•G•	2029.1	204261				
SPLITTE		N.G.	A) C	1902 5	1882.9	1056 6	1674 2	1971.8
	4 1925.5	N.G.	N.G.	1803.5	1002.9	1956.6	1976.3	19/100
245	1972.4							
BOTTOM		2002	207/	2010 7	2012 11	2010 5	2007 0	2010
301-30		2093.0	2016.6	2009.1	2063.8	2048.5	2021.3	2013.4
309	2010.9							
			DOFCCUO			45		
	00	STATIC	PRESSUR	E COEFFI	CIENIS	CP		
NACELLE		-1-663	<b>A</b> 1 C	N. C	<b>A</b> 1 - 4 *	-0 601	-0 202	AL C
310-31			N.G.	N.G.	N.G.	-0.406	-0.302	N.G.
318-32		-0.162	-0.077					
NACELLE		0.040	0.00		<b>A A D F</b>			۸. ۵
321-32		-0.263	-0.204	-0.211	-0.225	-0.221	-0.161	N.G.
329	-0.225							
CANOPY		2	7. 7	7				
330-33		-0.151	N. U.	N•G•	0.038			
	CENTER LI							
_	2 0.561	-0.091	-0.467	-0.643	-0.488	-0.302	0.219	0.443
CANOPY								
343-34	4 0.186	0.420						

## 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

					LP			
	0.01	3.87	0.601	0.515	1.00	-0.0	2 OPE	N
NR	PTC	PSC	PS	SB .	K 3•49	L		
0.997	2131	•4 1996	•2 198	19.4	3.49	1.32	1.27	0.612
		<b>7074</b>						
	2.45	TOTA	L PRESSU	RE RATIO	OS. PT/P	10		
INLET				0.0050	0.0440			N C
	08 1.0008		1.0008		0.9662	0.9860		N.G.
	16 1.0007			0.9946		1.0001	1.0010	
	24 1.0001				1.0008	1.0006	1.0007	1.0007
	30 1.0008		1.0008	1.0010	1.0011	1.0011		
	RY LAYER I		0.0430		0.0510	A1 C	0 0071	0 0000
	38 N•G•			N.G.	0.8519	N.G.	0.9271	0.8930
	42 0.8692		0.8540	0.8530				
	RY LAYER I	_						
143-14	44 0.8731	0.8064						
		TAIL	ET STATE	C DDESSI	URES. PS			
RAKE W	ΔΙΙ	INC	EI SIAII	C PRESS	OKEST PS			
	06 1988.8	2003.4	2010.5	N.G.	1982.3	N.G.		
RAKE B		200364	201007	11000	170203	1100		
	12 1957.7	1961.1	1963.9	1963.1	1953.5	N.G.		
TOP	22 277141	1,0141	1,034,	1,0561	173343	1100		
	20 1318.2	2091.5	N.G.	2103.7	2088.2	2083.9	2076.3	2071.5
	24 2065.6	-		2020.4	200002	200347	20,003	20.102
SIDE	14 100340	202004	202100	202004				
	32 1103.3	2024.6	2129.4	2136.7	2119.8	2105.1	2091.5	2079.4
	36 2069.8	N•G•	2029.7	2044.1				
SPLITT		11000						
	44 1861.4	N.G.	N.G.	1790.6	1864.2	1918.5	1954.6	1970.4
245	1975.2		•					
BOTTOM								
	08 N.G.	2119.9	2113.5	2107.1	2100.4	2074.8	2036.0	2013.4
309	2008.6							
• • • • • • • • • • • • • • • • • • • •								
		STATIC	PRESSUR	E COEFF	ICIENTS.	CP		
NACELLI	TOP							
310-3	17 N.G.	-1.327	N.G.	N.G.	N.G.	-0.408	-0.315	N.G.
318-3	20 N.G.	-0.171	-0.092					
NACELLE	SIDE							
321-3	28 N.G.	-1.474	-1.129	-0.962	-0.862	-0.655	-0.391	N.G.
329	-0.287							
CANOPY								
330-3	34 N.G.	-0.360	N.G.	N.G.	-0.025			
CANOPY	CENTER L							
335-34	42 0.560	-0.083	-0.469	-0.650	-0.493	-0.305	0.231	0.413
CANOPY	_							
343-3	0.174	0.315						

### 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

M/M\*

0.677

LP

1.50

RP

-0.03

BP

OPEN

RUN 4 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, L/H ENGINE OPERATIVE

MO

0.600

ALPHA

0.01

BETA

3.87

	0.01	2001		0.011	1000		-	
NR	PTC	PSC	Ρ:	SB .	K	L	WC	M/MO
0.993	2121	9 1871	8 189	59.1	8.88	2.67	1.66	0.804
			• • • • • • • • • • • • • • • • • • • •					
		7074		105 0471	0.5	•		
		101A	L PRESSI	JRE RATIO	DS. PT/P	10		
INLET RA								
101-108	1.0004	1.0007	1.0007	0.9704	0.9131	0.9751	1.0008	N.G.
109-116	1.0005	0.9825	0.9707	0.9959	1.0008	1.0013	1.0008	0.9945
117-124	0.9950	0.9999	1.0008	N.G.	1.0005	1.0004	0.9999	1.0007
	1.0008	-	1.0006		_	1.0008		
BOUNDARY	-		10-000			1,,,,,		
		0.9328	0 0220	AL C	0.8815	N.G.	0.9899	0.9608
131-138				N.G.	0.0012	N.G.	0 8 9 0 9 9	0.7000
	-	0.9013	0.8827	0.8787				
BOUNDARY								
143-144	0.8780	0.8096						
		INL	ET STATI	C PRESSU	JRES PS			
RAKE WALI	L							
201-206	_	1885.7	1899.0	N.G.	1842.2	N.G.		
RAKE BULI			201700					
207-212		1805.2	1812.0	1807.8	1794.5	N.G.		
	177002	1003.5	1612.0	100100	1/7402	14.0.		
TOP			A1 C	2017 0	2011	0007 (	2025 5	2016 0
213-220		2110.7	N.G.	2067.8	2044•4	2037.6	2025.5	2015.9
221-224	2006.8	1919.9	1919.6	1915.9				
SIDE								
225-232	1241.1	2079.1	2139.8	2114.7	2081.9	2057.1	2033•7	2014.7
233-236	2000.6	N.G.	1935.7	1961.1				
SPLITTER								
237-244	1698.5	N.G.	N.G.	1690.9	1687.2	1677.6	1783.8	1847.6
245	1851.0	.,,,,,,		10,00,		201100	2.0300	2000
	1651.0							
BOTTOM		200/ 1	2071 0	2010	2055 /	2017 2	1044	1000 5
301-308	N.G.	2086.1	2071.8	2063.6	2055•4	2017.3	1946.4	1903.5
309	1897.1							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE S	rop							
310-317	N.G.	-1.490	N.G.	N.G.	N.G.	-0.421	-0.312	N.G.
318-320	N•G•		-0.091					
		-00110	00071					
NACELLE S		. 77(	0.044	0 453	0 774	0 (10	0 250	N C
321-328	N.G.	-1.776	-0.966	-0.003	-0.776	-0.010	-0.359	N.G.
329	-0.288							
CANOPY SI	_							
330-334	N.G.	-0.367	N.G.	N.G.	-0.058			
CANOPY CE	NTER LI	NE						
335-342			-0.477	-0.664	-0.511	-0.328	0.166	0.422
CANOPY SI		- •	•					
343-344		0.333						
J7J J77		• • • • •						

### 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, L/H ENGINE OPERATIVE

	DOOM	PART CATE	it both t	J. L	· LITOTITE			
A	LPHA	BETA	МО	M/M×	LP	RP	BP	
	0.01	3.87	0.600	0.786	2.00	-0.03	OPEN	l
NR					K			
0.991	2118	4 1757	•4 173	35.9	11.23	3.36	1.93	0.934
		TOTA	L PRESSU	JRE RATIO	OS. PT/P1	0		
INLET RA					= =			
	-		-		0.8902		1.0012	
			0.9464		1.0011		1.0012	
	-	0.9947			1.0010		0.9919	0.9981
		N.G.	1.0006	1.0011	0.9999	1.0005		
BOUNDARY								
				N.G.		N.G.	0.9931	0.9732
139-142	-		0.8880	0.8793				
BOUNDARY								
143-144	0.8770	0.8098						
		TALL	CT CTATI	1.C 005.CC	UDEC DC			
DAKE MAL		INL	EI SIAII	IC PRESS	URES. PS			
RAKE WAL	1738.0	1774.2	1704 2	N - C	1723.1	N.G.		
RAKE BUL		111402	177402	N.G.	1/2501	N • G •		
	1646.6	1659.5	1667.6	1660 4	1644.9	N.G.		
TOP	1040 0	103763	1007.5	1037.0	104467	NOO		
	1512.2	2116.7	N.G.	2026.9	1998.1	1994.1	1978.6	1965.9
	1953.5			1824.4	177001	177461	171000	1,0,0,0
SIDE	1,,,,,,,	102103	102760	102464				
	1372.7	2109.0	2135 a Ü	2083.6	2041.8	2010.5	1982.0	1956.0
233-236		N.G.	1848.2					
SPLITTER		,,,,,,						
237-244		N.G.	N.G.	1454.3	1482.8	1534.7	1658.4	1711.5
245	1720.0							
BOTTOM								
301-308	N.G.	2058.0	2041.3	2031.4	2021.6	19,0.7	1865.9	1802.4
3 4 9	1797.0							
		STATIC	PRESSUR	RE CUEFF	ICIENTS.	CP		
NACELLE	TOP							
310-317			N.G.	N.G.	N.G.	-0.407	-0.304	N.G.
318-320		-0.167	-0.088					
NACELLE								
321-328		-1.493	-0.880	-0.791	-0.728	-0.579	-0.345	N.G.
329	-0.280							
CANOPY S		0 244	AL C		0.045			
330-334		-0.364	N.G.	N•G•	-0.067			
CANOPY C	U-559		-0-477	m11. 66 h	-0.516	-0.224	0.146	0-400
		-0.007	-00411	-0.000	-0.510	-01334	0 0 1 40	0.409
CANOPY S	IUE	7.7						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE, P.O PRESSURE OVERFLOW, DATA INVALID.

0.318

)

343-344 0.097

#### INLET PRESSURE SURVEY 1/5 SCALE MODEL RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, PT 61 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA -0.98	M0 0•400	M/M* 0•639	LP 2•50	RF 2•5		
NR	PTC	PSC			K	L	WC.	M/MO
0.998	2131	-	.8 190		3.47	1.67	1.58	1.016
				•••	30	200.		
		TOTA	L PRESSU	RE RATIO	S. PT/P	TO		
INLET R	AKE							
101-10	8 0.9813	0.9952	0.9956	0.9662	1.0004	1.0007	1.0002	N.G.
109-11	6 1.0005	0.9980	1.0005	1.0008	1.0005	1.0008	1.0006	1.0006
117-12	4 1.0005	1.0006	1.0006	N.G.	1.0005	1.0004	1.0005	1.0005
125-13	0 1.0004	N.G.	1.0004	1.0004	1.0004	1.0007		
BOUNDAR	Y LAYER I	RAKE						
131-13	B N.G.	0.9977	0.9961	N.G.	0.9604	N.G.	1.0000	1.0000
139-14	2 0.9966	0.9854	0.9625	0.9464				
BOUNDAR	Y LAYER (	DUCT						
143-14	4 0.9396	0.9092						
		INL	ET STATI	C PRESSL	JRES. PS			
RAKE WA								
	6 1907.6	1924.0	1931.6	N.G.	1896.0	N.G.		
RAKE BU								
	2 1848.0	1853.4	1859.0	1854.8	1849.1	N.G.		
TOP							1010	
	0 2106.9	2013.5	N.G.	1816.7	1831•3	1854.2	1866.9	1876.2
	4 1884.4	1955.0	1956.1	1948.2				
SIDE								
	2 2135.2	2005.6	1855.1	1794.6	1826•3	1837.0	1844•3	1842.6
233-23		N.G.	1951.1	1979.3				
SPLITTE								
237-24		N.G.	N.G.	1876.5	1870•9	1907.6	1902.8	1879.1
245	1874.3							
BOTTOM							.004 0	
301-30		1896.6	1909.9	1915.8	1915.8	1912.2	1926.8	1932.4
309	1933.2							
			2256640			-5		
	<b>T</b> 00	STATIC	PRESSUR	E COEFFI	CIENTS	CP		
NACELLE		0.001	N C	A1 C	N 6	0 100	0 000	A1 6
310-31			N.G.	N.G.	N.G.	-0.183	-0.200	N.G.
318-32		-0.118	-0.050					
NACELLE		0 010	-0.044	-0.100	-0.166	_0 204	-0.141	AL C
321-32		0.010	-0.064	-0.132	-0.166	-0.206	-0.161	N.G.
329	-0.201							
CANOPY	-	-0.224	N.G.	N•G•	-0.080			
330-33	4	-0.226	11.00	14.00	-0.000			
335-34		-0.098	-0.440	-0.596	-0.488	-0.354	-0.020	0.129
CANOPY		44070	V - 7 - 7 V			U U J J J T	-1020	127
	4 -0.012	0.156						
J4J-34	00012	A 130						

#### INLET PRESSURE SURVEY 1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

-0.338

0.007

BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER. KUN

PT	62	BOUNDARY	LAYER	DUCT	OPEN.	вотн	ENGINES	OPERATIVE		
	A I DI	IA BET		MO	м	/M#	I P	RP	BP	

CTOL FLIGHT REGIME

0.583 0.401 2.00 2.00 -0.10 WC PTC PSC M/MO PSB L K NR 0.925 U.999 2133.6 1957.1 1945.3 2.18 1.35 1.44

#### TOTAL PRESSURE RATIOS. PT/PTO

INLET RAI	ΚE							
101-108	0.9862	0.9964	0.9987	0.9790	1.0004	1.0004	1.0005	N.G.
109-116	1.0004	0.9999	1.0007	1.0008	1.0004	1.0007	1.0005	1.0005
117-124	1.0004	0.9996	1.0005	N.G.	1.0005	1.0004	1.0004	1.0004
125-130	1.0002	N.G.	1.0004	1.0004	1.0004	1.0004		
BOUNDARY	LAYER R	AKE						
131-138	N.G.	0.9984	0.9949	N.G.	0.9598	N.G.	1.0000	0.9998
139-142	0.9956	0.9838	0.9618	0.9466				
BOUNDARY	LAYER D	UCT						
143-144	0.9424	0.9096						

#### INLET STATIC PRESSURES. PS

RAKE WALL

CANOPY CENTER LINE

343-344 0.011

CANOPY SIDE

335-342 0.522 -0.093

201-206 1951.6	1964.0	1970.8	N.G.	1942.0	N.G.		
RAKE BULLET							
207-212 1903.6	1907.6	1911.0	1909.3	1904.5	N.G.		
TOP							
213-220 2068.2	2060.0	N.G.	1888.9	1892.3	1912.9	1918.3	1925.1
221-224 1932.4	1989.7	1990.3	1984.1				
SIDE							
225-232 2122.4	2053.6	1933.3	1876.8	1895.2	1899.1	1895.7	1900.5
233-236 1905.0	N.G.	1986.4	2009.8				
SPLITTER							
237-244 2136.3	N.G.	N.G.	1924.5	1919.4	1950.2	1946.3	1927.6
245 1923.7							
BOTTOM							
301-308 N.G.	1945.7	1954.6	1958.7	1958.0	1954.1	1966.4	1969.2
309 1971.5							
	STATIC	PRESSUR	F COFFEI	CIENTS.	CP		
NACELLE TOP	317110	1 1123301		CILITION	•		
310-317 N.G.	-0-137	N.G.	N.G.	N.G.	-0.209	-0.207	N.G.
318-320 N.G.	-0.119						
NACELLE SIDE	••••						
321-328 N.G.	-0.086	-0-123	-0.176	-0.206	-0.238	-0.170	N.G.
329 -0.201		~~~~		71270			
CANOPY SIDE							
330-334 N.G.	-0.225	N.G.	N.G.	-0.067			

-0.587 -0.478

READ TUBES HORIZONTALLY AND CONSECUTIVELY. N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

-0.446

0.195

0.183

## 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 63 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	500111	PART CATE	5561					
	ALPHA	BETA	MO	M/M*	LP	RP	ВР	
					1.50		_	
NR	PTC	-		SB	K	L	WC	M/MO
1.000	2135				1.37	0.97	•	
					203.			• • • • • • • • • • • • • • • • • • • •
		TOTA	L PRESSI	JRF RATIO	S. PT/P	0.1		
INLET F	RAKE	, , , , ,				. •		
	08 0.9938	0.9974	0.9996	0.9874	1.0007	1.0007	1.0006	N.G.
	6 1.0008		1.0008	1.0011	1.0006	1.0008	1.0005	1.0007
	4 1.0006		1.0007	N.G.	1.0006	1.0004	1.0006	1.0005
	0 1.0004		1.0007	1.0006	1.0005	1.0005	10000	200,00
	RY LAYER I		10007	1.0000	1.0005	10000		
	8 N.G.		0.9932	N.G.	0.9589	N.G.	1.0004	1.0000
	2 0.9943		0.9604		0.7507	11.05	10004	1.0000
	RY LAYER (		0 8 9 8 0 4	0.5476				
142-14	4 0.9464	099101						
		7 444	CT		ים כ			
DAKE III		INL	EI SIAII	IC PRESSU	IRES PS			
RAKE WA		2014	2010 /		1000 0	N C		
	6 2004.7	2014.6	2019.4	N.G.	1998.8	N.G.		
RAKE BL		107/ 0	107/ 0	1076 0				
The state of the s	2 1971.4	1974.8	1976.2	1975.9	1971.7	N.G.		
TOP		0107.0	<b>A</b> 1	1077 0	1070 0		1004 3	1005 0
	0 1997.9		N.G.	1977.0	1972.2	1983.2	1984.7	1985.8
	4 1992.0	2031.8	2032.9	2028.7				
SIDE								
	2 2082.4	2105.5	2023.3	1973.1	1977.0	1975.1	1969.1	1973.4
233-23	6 1976.2	N.G.	2029.8	2047.6				
SPLITTE	:R							
237-24	4 2137.1	N.G.	N.G.	1986.1	1981.3	2003.6	2001.0	1986.9
245	1985.2							
BOTTOM								
301-30	8 N.G.	2005.5	2010.4	2011.4	2010.7	2006.3	2015.5	2019.1
309	2019.4							
		•						
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31		-0.298	N.G.	N.G.	N.G.	-0.245	-0.219	N.G.
318-32	O N.G.	-0.119	-0.048					
NACELLE								
321-32		-0.246	-0.223	-0.243	-0.257	-0.261	-0.183	N.G.
329	-0.209							
CANOPY	. • -							
330-33		-0.222	N.G.	N.G.	-0.048			
	CENTER LI							
335-34		-0.088	-0.424	-0.575	-0.463	-0.325	0.046	0.260
CANOPY	_							
343-34		0.250						

## 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 64 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA -4.02	BETA -0.11	MQ 0•398	M/M* 0.501	LP 1•50	RP 1•5	BP 1 OPE	N.
NR	PTC	_	PS		K 1650	F 102	MC OFFI	M/MO
1.000	2135		_	_	1.09	0.95	1.24	0.799
1.000	2133	2000	200	0.1	1.09	0.95	1024	00177
		TOTAL	DDESCH	DE DATIC	S. PT/P1	0.0		
INLET R	AVE	וסואו	L 1 1 1 2 3 0	WE WATTE		•		
	8 0.9899	0.0972	0.9996	0.9907	1.0005	1.0005	1.0005	N.G.
	6 1.0005	_	1.0006	1.0008	0.9994	1.0008	1.0005	1.0007
	4 1.0004		1.0005	N•G•	1.0004	1.0005	1.0005	1.0005
	0 1.0004	N.G.	1.0005	1.0000	1.0004	1.0006	1.0000	1.0000
	Y LAYER I	-	1.0008	1.0000	1.0003	1.0008		
131-13			0.9994	N.C	0.9687	N.G.	1.0006	1.0003
	2 0.9994		0.9712	N.G. 0.9549	0 9 9 6 0 7	N. G.	1.0000	1.0003
			0.9/12	0.7349				
	Y LAYER I							
143-14	4 0.9522	0.9128						
		• ***		c 005661	1056 06			
5445		INL	EL STATI	C PRESSU	IRES. PS			
RAKE WA		2014 0	2017 7	۸. ۵	1007			
	6 2004.7	2014.0	2017.7	N.G.	1997•4	N.G.		
RAKE BU		1070 /	107/ 0	107/ 0	1070 0			
	2 1970.0	1973.4	1976.2	1974.8	1970.3	N.G.		
TOP	0.0054			-057				
	0 2054.4	2085.7	N.G.	1957.6	1960.7	1974.8	1978.2	1983.0
	4 1987.8	2031.2	2032.4	2027.6				
SIDE		121122						
	2 2058.4	2115.4	2036.3	1981.6	1980•4	1978.2	1972.8	1972.5
	6 1974.8	N.G.	2028.1	2046•2				
SPLITTE								
	4 2137.4	N.G.	N.G.	1986.6	1981.0	2003.0	2000•2	1986.4
245	1981.8							
BOTTOM								
		2007.8	2010.1	2012.4	2009•1	2005.8	2014.0	2018.3
309	2018.6							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE		200	_					
310-31	7 N.G.			N.G.	N.G.	-0.172	-0.185	N.G.
318-32	U N.G.	-0.118	-0.057					
NACELLE								
321-32	8 N.G.	-0.372	-0.328	-0.343	-0.343	-0.340	-0.229	N.G.
329	-0.225							
CANOPY								
		-0.171	N.G.	N.G.	-0.058			
CANOPY	CENTER L	INE						
335-34	2 0.571	-0.003	-0.335	-0.502	-0.416	-0.293	0.050	0.256
CANOPY	SIDE							

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

0.244

343-344 0.046

## INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 4 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

A	LPHA	BETA	МО	M/M*	LP	RP	ВР	
-	4.02	-0.11	0.399	0.586	1.99	2.0	O OPE	N
NR	PTC	PSC	PS	ВВ	K	L	WC	M/MO
0.999	2134	1 1955	•2 194	3.3	1.82	1.34	1.45	0.934
		TOTA	ם מחרכני	DE DATI	IC DTAD	T 0		
INLET RA	KE	IUIA	L PRESSU	IKE KAIIC	DS. PT/P	10		
	0.9840	0.9957	0.9977	0.9828	1.0006	1.0006	1.0006	N.G.
	1.0007	1.0007	1.0007	1.0010	1.0006	1.0010	1.0007	1.0008
	1.0007			N.G.	1.0006	1.0006	1.0008	1.0006
	1.0007	N.G.	1.0005	1.0007	1.0005	1.0005		
BOUNDARY								
131-138		0.9995	0.9995	N.G.	0.9698	N.G.	1.0002	1.0001
139-142			0.9722	0.9543		-		
BOUNDARY	•							
	0.9487	-						
		TALL	ET CTATI	C DDFCCI	JRES. PS			
RAKE WAL	1	1146	LI SIAII	C PRESSE	REST PS			
201-206	_	1962.6	1968.6	N.G.	1940•0	N.G.		
RAKE BUL		170200	170000	,,,,,,	174000	.,,,,,,		
207-212	_	1904.8	1909.8	1907.0	1901.4	N.G.		
TOP	1,000	17040	170760	170100	170104	1100		
213-220	2109.5	2026.2	N.G.	1862.4	1877.1	1899.1	1911.5	1919.7
221-224		1987.8	1988•9	1981.6	20,102	207742		27270.
SIDE	172707	170700	1,000,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
225-232	2110.0	2068.8	1948.5	1884.4	1896.6	1900.2	1900.2	1897.4
	1902.5	N.G.	1983.8	2007.8			• • • • • • • • • • • • • • • • • • • •	
SPLITTER		.,,,,,						
237-244	2137.7	N.G.	N.G.	1925.4	1920.0	1948.5	1943.2	1925.1
245	1920.6	.,,						
BOTTOM			•					
301-308	N.G.	1949.0	1953.6	1956.7	1958.5	1952.1	1962.8	1969.5
309	1970.0							
		ST TIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE				·				_= =
310-317		0.037		N.G.	N.G.	-0.134	-0.171	N.G.
318-320	N.G.	-0.112	-0.063					
NACELLE :								
321-328	N.G.	-0.205	-0.224	-0.269	-0.280	<b>-0.295</b>	-0.210	N.G.
329	-0.217							
CANOPY S			F3.		12 11-21			
330-334		-0.171	N.G.	N.G.	-0.070			
CANOPY CE				- 4 8				
		-0.005	-0.347	-0.505	-0.424	-0.309	0.008	0.183
CANOPY S								
343-344	0.019	U <sub>•</sub> 191						

# 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY • 24E OVAL INLET • LONG SPLITTER • BOUNDARY LAYER DUCT OPEN • BOTH ENGINES OPERATIVE

		BETA						
		-0.11					OPEN	
NR	PTC	_	P 9	_	K	L	_	M/MO
<b>0.998</b>	2132	3 1910	3 189	14.7	3.01	1.68	1.60	1.026
		TOTAL	PRESSI	IRF RATIO	OS. PT/P	ro		
INLET R	AKF	101711		NC NATIO		. •		
-	8 0.9778	0.9944	0.9983	0.9709	1.0006	1.0006	1.0006	N.G.
	6 1.0004			1.0008	-	_	-	.0006
117-12	4 1.0004		1.0005	N.G.		1.0007	1.0004 1	.0006
		N.G.	1.0005	1.0005		1.0006		
BOUNDAR	Y LAYER F	RAKE						
131-13	8 N.G.	0.9997	0.9998	N.G.	0.9702	N.G.	1.0000 1	.0002
139-14	2 0.9999	0.9953	0.9732	0.9536				
	Y, LAYER D							
143-14	4 0.9459	0.9105						
DAVE 144		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA		1019 0	1027 2	A1 C	1001 5	N.G.		
	6 1903.6	1918.9	1927.3	N.G.	1891.5	N.G.		
RAKE BU	2 1841.2	1847.2	1852.2	1848.9	1842.9	N.G.		
TOP	2 104102	104/62	105202	104069	104207	N.G.		
	0 2130.6	1969.1	N.G.	1781.1	1805.4	1842.6	1851.1 1	863.5
	4 1873.4	1951.3	1951.6	1940.9	100544	1042.0	107141 1	
SIDE	7 10/567	1/21/3	177100	1,400,				
-	2 2128.9	2021.4	1870.3	1800.3	1826.5	1833.6	1831.9 1	836.4
	6 1844.3	N.G.	1947.4	1976.2				
SPLITTE		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	•					
	4 2136.8	N.G.	N.G.	1873.7	1865.8	1902.8	1897.7 1	873.7
245	1868.3							
BOTTOM								
301-30	8 N.G.	1895.0	1911.2	1914.5	1914.2	1906.8	1921.9 1	927.8
309	1928.5							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	· ·	0.110				0.104		
		0.149		N•G•	N.G.	-0.124	-0.163	N.G.
318-32		-0.114	-0.055					
NACELLE		-0.100	-0 140	-0.212	-0.245	-0.200	-0.203	AL C
		-0.109	-0.103	-0.212	-0 6 2 4 5	-0.290	-0.201	N.G.
329	-0.212							
CANOPY		-0.175	N.G.	NaGa	-0-080			
	CENTER LI		1400	N.O.	-0 •000			
		-0.006	-0.346	-0.517	-0.432	-0.316	-0.010	0.129
CANOPY		0 0 0 0 0	0.040	00011	0 4 7 3 6	01710	31010	~ 127
Smile!								

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

0.148

343-344 0.000

#### INLET PRESSURE SURVEY

1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

#### CTOL FLIGHT REGIME

RUN 4 JASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 67 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA -0.13		M/M*				
					K	L		M/MO
NR	PI	C PSC	.4 190	16 - (1	3.99		1.56	
0.998	2130	.7 1920	.4		3077	1000	1000	10000
			TOTAL PRE	SSURE RAT	IOS, PT/PT	)		
INLET F							1 0000	
	08 0.9842				1.0007			N.G.
	16 1.0004				1.0006			
		1.0004					1.0006	1.0008
		N.G.	0.9999	1.0006	1.0006	1.0007		
	RY LAYER							
131-13	38 N.G.	0.9992			0.9514	N.G.	0.9997	0.9980
139-14	2 0.9863	0.9721	0.9522	0.9397				
BOUNDAR	RY LAYER	DUCT						
143-14	4 0.9332	0.9078						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA						=-		
	06 1912.9	1929.6	1936.4	N.G.	1902.5	N.G.		
RAKE BL				=				
	12 1855.3	1860.4	1865.2	1862.7	1856.2	N.G.		
TOP								
	20 2073.6		N.G.		1850•5	1871.7	1876.8	1885.8
221-22	24 1894.0	1960.1	1960.9	1953.3				
SIDE								
225-23	2 2136.6	1986.1	1839.5	1789.8	1825.7	1841.5	1844.1	1849.7
233-23	6 1857.3	N.G.	1955.6	1982.7				
SPLITTE	R							
237-24	4 2136.8	N.G.	N.G.	1881.6	1875.1	1912.7	1908.1	1885.6
245	1878.5							
BOTTOM								
301-30	8 N.G.	1898.4	1911.4	1917.5	1917.8	1917.0	1932.1	1937.5
	1938.3							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 N.G.	-0.184	N.G.	N.G.	N.G.	-0.237	-0.222	N.G.
318-32	0 N.G.	-0.111	-0.038					
NACELLE	SIDE							
		0.123	0.030	-0.048	-0.092	-0.142	-0-131	N.G.
	-0.194				_			
CANOPY	•							
		-0.268	NaGa	NaGa	-0.065			
	CENTER L							
		-0.171	-0.511	-0.648	-0.514	-0-366	-0.012	0.135
CANOPY								44132
		0.169						
J T J T J Y	- 0.003	09 10 3						

### INLET PRESSURE SURVEY 1/5 SCALE MODEL RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

BASIC CANOPY: 24E OVAL INLET: LONG SPLITTER:
BOUNDARY LAYER DUCT OPEN: BOTH ENGINES OPERATIVE

	ALPHA	BETA -0.13	M0	M/M*		RF 2 • (		
NO		_						
NR		PSC			K	L	WC	M/MO
J.998	2132	•4 1962	• 6 19:	1.1	3.14	1.31	1.42	0.914
		TOTA	L PRESSU	JRE RATIO	OS. PT/P	то		
INLET F	RAKE							
101-10	08 U.9895	0.9965	0.9964	0.9697	1.0004	U.9996	1.0005	N.G.
109-11	16 1.0005	0.9925	1.0004	1.0008	1.0006	1.0011	1.0004	0.9996
117-12	24 1.0007	1.0006	1.0001	N.G.	1.0000	1.0006	1.0005	1.0005
125-13	0 1.0006	N.G.	1.0006	1.0006	1.0005	1.0004		
BOUNDAR	RY LAYER F	RAKE						
131-13	88 N.G.	0.9972	0.9842	N.G.	0.9511	N.G.	0.9999	0.9979
139-14	2 0.9849	0.9706	0.9520	0.9409				
BOUNDAR	RY LAYER (	DUCT						
143-14	4 0.9372	0.9090						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	<b>NLL</b>							
201-20	6 1955.9	1970.0	1976.2	N.G.	1948.2	N.G.		
RAKE BU	JLLET							
207-21	2 1911.0	1914.6	1917.2	1916.3	1911.2	N.G.		
TOP								
213-22	20 2028.4	2086.0	N.G.	1915.5	1912.7	1927.3	1929.3	1934.4
221-22	4 1940.3	1993.1	1995.4	1988.9				
SIDE		- 11 11						
225-23	2 2132.3	2035.8	1917.7	1870.0	1894.3	1900.5	1898.8	1906.7
	6 1912.1	N.G.	1990.6	2011.5				
SPLITTE								
	4 2137.1	N.G.	N.G.	1929.9	1925 • 1	1954.7	1951.3	1933.6
245	1930.2	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
BOTTOM								
3-1-30	8 N.G.	1948.5	1957.5	1960.8	1961.3	1959.8	1971.5	1975.6
309	1976.6							
30)	17/000							
		STATIC	DDESCHID	E COLECT	CIENTS.	CD		
NACELIE	TOD	SIMITE	PRESSOR	E COEFFI	CIENTS	CF		
NACELLE	7 N.G.	-0.295	N.G.	N•G•	N.G.	-0.263	-0.226	N.G.
				14.0.	14.0.	-0.203	-0.226	N • G •
318-32		-0.110	-0.033					
NACELLE	–	0.027	-0 (126	-() ()90	-0.122	-0.160	-O 120	<b>A</b> 1 C
321-32		0.037	-0.029	-0.000	-0.122	-0.139	-0.139	N.G.
329								
CANOPY		-0.242	Ai C	A1 (	-0 063			
330-33		-0.263	IA ● Q ●	N.O.	-0.053			
	CENTER LI			1 100	0.504	0.050	0.000	
	_	-0.165	-0.502	-0.639	-0.504	-0.353	0.012	0.191
CANOPY	SIDE	0.146						
3/. 3-3/.	a = a + a + a + a + a + a + a + a + a +	0.162						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

0.163

343-344 0.020

## 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

	ALPHA	BETA -0.13	MU 0∙399	M/M* 0•491	LP 1•50	RP 1•5		
NR	PTC	_			K	L	WC	M/MO
0.999	2134	_		05.2	1.92	0.94	1.22	0.782
		TOTA	L PRESSL	RE RATIO	DS. PT/P	TO		
INLET	RAKE							
101-1	08 0.9963	0.9976	0.9990	0.9819	1.0006	1.0000	1.0006	N.G.
109-1	16 1.0006	0.9969	1.0004	1.0011	1.0006	1.0008	1.0004	1.0004
117-1	24 1.0006	1.0002	1.0004	N.G.	1.0005	1.0005	1.0005	1.0005
125-1	30 1.0004	N.G.	1.0004	1.0005	1.0006	1.0004		
BOUNDA	RY LAYER I	RAKE						
131-1	38 N.G.	0.9964	0.9802	N.G.	0.9499	N.G.	0.9996	0.9959
139-1	42 0.9812	0.9674	0.9506	0.9414				
BOUNDA	RY LAYER I	DUCT						
143-1	44 0.9401	0.9096						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE W				_				
	06 2008.4	2018.3	2022.8	N.G.	2002•7	N.G.		
RAKE BI								
	12 1976.8	1979.3	1981.8	1981.0	1976•2	N.G.		
TOP		2121	N C	1004 2	1004	1000 4	1000	1004 0
	20 1940.3		N.G.	1996.2	1986•4	1993.4	1992.8	1996.0
	24 1998.8	2035.2	2036.0	2032.4				
SIDE	22 23 67 1	2002 0	2000 0	1044 2	1076 2	1074 0	1072.4	107/ 6
	32 2104.1	2093.9	2009.8	1966.3	1975•3	1976.8	1973.6	1976.5
	36 1979.6	N.G.	2032.7	2049.3				
SPLITTE		N. G	AL C	1006 6	1006 0	2007.2	2005•3	1000.3
	4 2134.0	N.G.	N.G.	1985.5	1985.8	2001.02	200563	1992.3
245	1989.2							
BOTTOM 301-30	08 N.G.	2012.2	2012.0	2012.0	2010.9	2010-1	2018.6	2022.2
301-30	2022.4	-	2013.0	2013.0	201009	20101	201000	2022.2
309	2022.4							
		STATIC	PRESSUR	E COFFEI	CIENTS.	CP		
NACELLE	TOP	JIAITE	· NESSON		CILITION	<b>.</b>		
310-3		-0.471	N.G.	N.G.	N.G.	-0.309	-0.244	N.G.
318-3								
NACELLE		V 114						
321-32		-0.107	-0.121	-0.158	-0.181	-0.196	-0.159	N.G.
329	-0.206		••••		••••	00270		
CANOPY								
330-33		-0.261	N.G.	N.G.	-0.042			
	CENTER LI							
		-0.166	-0.501	-0.635	-0.495	-0.341	0.047	0.255
CANOPY	-		_					
	4 0.045	0.252						

## . INLET PRESSURE SURVEY 1/5 SCALE MODEL RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY 24E OVAL INLET LONG SPLITTER PT 70 BOUNDARY LAYER DUCT OPEN BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RF	BF	•					
					1.50	1.5		N					
NR	-	PSC			K	L	WC	M/MO					
0.998	2132	•5 2019	0 201	11.5	2.15	0.85	1.18	0.762					
70744 DD-0640- 04740- 0740-													
TOTAL PRESSURE RATIOS. PT/PTO													
INLET F		0.0070	0 0014	0.0704									
	08 0.9982			0.9794	_		1.0005						
	16 1.0007			1.0000		1.0008		-					
	24 1.0006			N.G.		1.0000	1.0006	1.0002					
	30 1.0002		1.0007	1.0004	1.0004	1.0004							
	RY LAYER		0.0527	<b>N</b> C	0.0240	A) C	0 0025	0.0497					
	88 N.G.		0.9537		0.9369	N.G.	0.9835	0.9687					
	2 0.9535		0.9394	0.9316									
	RY LAYER I												
143-14	4 0.9274	0.9047					•						
		7 811	CT CTATI	C DDECC	וחבר. חב								
DAKE W		INL	EI SIAII	C PRESSU	JRES PS								
RAKE WA	6 2014.6	2023.9	2027.9	N. C	2009.8	N.G.							
RAKE BU	_	202369	202169	N•G•	2009.0	NaGe							
_	2 1984.7	1987.5	1987.8	1988.9	1984.4	N.G.							
TOP	2 170401	170167	1707.0	[ >00 6 >	170404	14.00							
-	0 1847.2	2133.5	N.G.	2018-5	2003.3	2005.8	2003.6	2004.7					
	4 2007.0		2040.8		200303	200340	200300	200401					
SIDE	.4 200140	204080	204000	203103									
- '	2 2127.2	2068.5	1983.2	1952.5	1970.3	1976.2	1977.6	1980.4					
	6 1984.4	N.G.		2051.9	17.003	171002	271100	270004					
SPLITTE		1100	203103	203107									
	4 2136.6	N.G.	N.G.	1996.0	1990.0	2012.9	2012.0	1999.6					
245	1997.4	,,,,,,		1,,,,,,	2,,,,,,	201207	202200	.,,,,,					
BOTTOM													
301-30		2022.9	2020.1	2018.3	2018.1	2016.5	2025.2	2027.3					
309	2026.5		202002			201015							
307	202007												
		STATIC	DDECCHD	E COEFFI	CIENTS	СР							
NACELLE	TOP	SINIIC	FRESSON	COLITI	CILITIO	CF							
310-31		-0.707	N.G.	N.G.	N.G.	-0.380	-0.263	N.G.					
318-32			-0.023	***************************************		00300	***************************************						
NACELLE		0,102	00023										
321-32		0.094	0.032	-0.033	-0.067	-0.105	-0.120	N.G.					
329	-0.221		3,000		••••	30200							
CANOPY SIDE													
330-33		-0.325	N.G.	N.G.	-0.023								
	CENTER LI												
	2 0.423		-0.595	-0.693	-0.516	-0.346	0.069	0.246					
CANOPY	SIDE												
343-34	4 0.063	0.254											

# 1/5 SCALE MODEL INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 71 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA 10.03	BETA -0.13	M0 0-397	M/M* 0.556								
NR	PTC	_		SB	K	L	WC	M/MO				
0.997	-	.5 1971				1.17	1.38					
								•				
·												
TOTAL PRESSURE RATIOS. PT/PTO												
INLET R	RAKE											
101-10	8 0.9954	0.9969	0.9909	0.9707	1.0004	1.0006	0.9995	N.G.				
109-11	6 1.0006	0.9752	1.0004	1.0010	1.0005	1.0008	1.0002	0.9921				
117-12	4 1.0005	1.0006	1.0004	N.G.	1.0005	1.0002	1.0002	1.0004				
125-13	0 1.0004	N.G.	1.0005	1.0005	1.0007	1.0006						
BOUNDAR	Y LAYER	RAKE										
131-13	8 N.G.	0.9799	0.9581	N.G.	0.9370	N.G.	0.9892	0.9746				
139-14	2 0.9582	0.9499	0.9392	0.9309								
BOUNDAR	Y LAYER	DUCT										
	4 0.9259	-										
		INL	ET STATE	C PRESSU	JRES. PS							
RAKE WA	LL											
201-20	6 1964.3	1977.0	1983.8	N.G.	1959.0	N.G.						
RAKE BU	LLET											
207-21	2 1923.7	1925.4	1932.1	1931.0	1923.1	N.G.						
TOP												
213-22	0 1942.9	2113.7	N.G.	1951.3	1938.4	1947.1	1946.0	1949.9				
221-22	4 1953.3	2001.6	2001.6	1997.1								
SIDE												
225-23	2 2136.0	2008.1	1890.9	1860.1	1891.5	1909.3	1915.5	1914.4				
233-23	6 1922.3	N.G.	1997.6	2018.5								
SPLITTE												
	4 2135.4	N.G.	N.G.	1941.2	1938 • 1	1964.0	1961.5	1944.8				
245	1941.2			_								
BOTTOM												
	8 N.G.	1963.1	1964.4	1966.9	1967.2	.1969.0	1979.7	1983.3				
309	1982.3	14				-						
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP						
NACELLE	TOP											
310-31	7 N.G.	-0.544	N.G.	N.G.	N.G.	-0.342	-0.252	N.G.				
318-32	0 N.G.	-0.098	-0.011									
NACELLE	SIDE	-										
321-32	8 N.G.	U.207	0.108	0.028	-0.016	-0.072	-0.105	N.G.				
329	-0.213											
CANOPY SIDE												
330-33		-0.330	N.G.	N.G.	-0.038							
	CENTER LI											
335-34			-0.600	-0.702	-0.531	-0.340	0.031	0.196				
CANOPY												
	4 0.035	0.217										

#### INLET **PRESSURE** SURVEY 1/5 SCALE MODEL RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER. 4 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE 72 RP RP ALPHA BETA MÜ M/M\* LP 2.50 OPEN 0.397 0.610 10.03 -0.13 2.51 NR PTC PSC **PSB** K WC M/MO 1.51 0.996 0.975 2128.0 1932.1 1919.8 3.76 1.43 TOTAL PRESSURE RATIOS. INLET RAKE 0.9953 0.9886 0.9634 1.0002 1.0005 1.0000 N.G. 101-108 0.9892 1.0000 1.0008 1.0005 1.0007 0.9901 109-116 1.0001 0.9675 1.0004 1.0005 1.0006 1.0006 1.0002 1.0004 1.0004 117-124 1.0005 N.G. 125-130 1.0005 N.G. 1.0002 1.0004 0.9971 1.0005 BOUNDARY LAYER RAKE 131-138 N.G. 0.9779 0.9608 N.G. 0.9376 N.G. 0.9913 0.9779 0.9391 0.9296 139-142 0.9610 0.9498 BOUNDARY LAYER DUCT 143-144 0.9229 0.9025 INLET STATIC PRESSURES. PS RAKE WALL 201-206 1924.0 1940.9 1947.1 N.G. 1916.6 N.G. RAKE BULLET 1876.0 207-212 1871.4 1881.6 1881.9 1872.0 N.G. 213-220 2005.3 2086.9 N.G. 1890.4 1881.9 1895.4 1896.6 1901.6 221-224 1907.6 1963.5 1969.1 1970.3 1809.0 1779.1 225-232 2134.9 1950.2 1822.9 1850.0 1856.8 1856.8 233-236 1868.6 1964.3 1989.5 N.G. SPLITTER 1920.6 237-244 2136.8 1895.2 1890.4 1924.2 1897.1 N.G. N.G. 1895.7 BOTTOM 1921.9 1928.0 1942.9 301-308 1908.1 1916.5 1923.7 1947.0 N.G. 1947.0 STATIC PRESSURE COEFFICIENTS. CP NACELLE TOP 310-317 -0.422 N.G. N.G. N.G. N.G. -0.311 -0.238 N.G. -0.006 318-320 -0.100 N.G. NACELLE SIDE 321-328 N.G. 0.291 0.166 0.075 0.019 -0.050 -0.093 N.G. -0.203 CANOPY SIDE -0.334 N.G. -0.049 330-334 N.G. N.G. CANOPY CENTER LINE

RUN

PT

TOP

SIDE

245

309

329

335-342

CANOPY SIDE 343-344

0.423

0.020

-U. 271

0.187

READ TUBES HORIZONTALLY AND CONSECUTIVELY. N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

-0.598

-0.705

-0.535

-U.340

0.008

0.157

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 74 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BEŢA	МО	M/M*	LP	RP	_	
	-0.01	-4.13	0.397	0.628	2.51	2.5	O OPE	N
NR	PTC		-		K	L	WC	M/M0
0.997	2128	•5 1919	•4 190	05.1	3.55	1.55	1.56	1.004
		TOTA	L PRESSU	JRE RATIO	S. PT/P	TO		
INLET R	RAKE							
101-10	8 0.9764	0.9877	0.9781	0.9654	1.0005	1.0004	1.0004	N.G.
109-11	6 1.0004	0.9910	1.0005	1.0007	1.0004	1.0006	1.0004	1.0002
117-12	4 1.0004	0.9984	1.0004	N.G.	1.0004	1.0004	1.0005	1.0004
125-13	0 1.0004	N.G.	1.0005	1.0005	1.0004	1.0004		
BOUNDAR	Y LAYER I	RAKE						
131-13	8 N.G.	0.9960	0.9960	N.G.	0.9606	N.G.	0.9999	1.0000
139-14	2 0.9967	0.9858	0.9632	0.9459				
BOUNDAR	Y LAYER	DUCT						
143-14	4 0.9363	0.9093						
		INL	ET STATI	C PRESSU	RES. PS			
RAKE WA								
201-20	6 1914.1	1926.8	1935.0	N.G.	1901.9	N.G.		
RAKE BU								
	2 1853.9	1858.2	1865.2	1862.1	1855.3	N.G.		
TOP								
	0 2115.7	1991.2	N.G.	1783.9	1802.5	1833.0	1850.0	1863.0
	4 1873.1	1958.1	1959•2	1951.6				
SIDE								
225-23	2 2123.6	1870.3	1699.2	1678.9	1752.6	1792.1	1809.3	1813.3
233-23	6 1826.0	N.G.	1951.6	1977.6				
SPLITTE								
237-24	4 2137.4	N.G.	N.G.	1899•4	1886.7	1915.5	1908.7	1884.7
245	1879.9							
BOTTOM								
301-30	8 N.G.	1840.3	1868.2	1881.7	1888.4	1899.9	1926.0	1934.9
309	1935.5							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31	7 N.G.	0.015	N.G.	N.G.	N.G.	-0.174	-0.201	N.G.
318-32	0 N.G.	-0.120	-0.058					
NACELLE								
321-32		0.388	0.236	0.127	0.058	-0.032	-0.071	N.G.
329	-0.158							
CANOPY	SIDE							
330-33		-0.140	N.G.	N.G.	-0.050			
CANOPY	CENTER LI	NE						
335-34	2 0.515	-0.102	-0.432	-0.596	-0.480	-0.347	-0.020	0.134
CANOPY	SIDE							
343-34	4 0.008	0.177						

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 75 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RP	_	
	-0.01	-4.13			2.00			
NR	PTC		_		K	L	WC	M/MO
0.998	2130	8 1960	•3 194	8.1	2.70	1.27	1.42	0.915
		TOTA	PRESSU	RE RATIO	OS. PT/P	10		
INLET I	RAKE	7017				. •		
101-10	08 0.9811	0.9904	0.9841	0.9739	1.0007	1.0004	0.9982	N.G.
109-1	16 1.0006	0.9976	1.0006	1.0003	1.0004	1 0005	1.0002	1.0006
117-17	24 1.0000	1.0004	1.0004	N.G.	1.0004	0.9996	1.6176	1.0005
125-13	30 1.0004	N.G.	1.0007	1.0005	1.0005	1.0006		
BOUNDA	RY LAYER F	RAKE						
131-13	38 N.G.	0.9978	0.9954	N.G.	0.9604	N.G.	0.9999	1.0000
139-14	42 0.9958	0.9844	0.9624	0.9471				
BOUNDAR	RY LAYER (	DUCT						
143-14	44 0.9398	0.9100						
		TNL	FT STATI	C PRESSU	JRES. PS			
RAKE WA	ALL		LI VIAIL	C . N.2001	JACOV 10			
	06 1955.0	1967.7	1972.8	N.G.	1945.7	N.G.		
RAKE BU								
	12 1907.0	1910.7	1913.8	1913.2	1908.1	N.G.		
TOP								
• -	20 2087.7	2039.4	N.G.	1854.5	1865.2	1888.4	1900.8	1911.5
	24 1921.4	1990.6	1992.6	1986.1	_	_		
SIDE								
_	32 2135.2	1929.3	1788.7	1765.8	1820.1	1852.8	1857.0	1871.7
233-23		N.G.	1986.4	2007.5				
SPLITTE		.,						
-	4 2138.0	N.G.	N.G.	1944.8	1932.7	1958.4	1948.8	1931.6
245	1926.8							
BOTTOM								
301-30	08 N.G.	1898.9	1918.8	1928.0	1932.1	1941.3	1963.8	1972.0
309	1973.3							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
		-0.076	N.G.	N.G.	N.G.	-0.194	-0.216	N.G.
318-32		•						
NACELLE								
	8 N.G.	0.327	0.197	0.097	0.036	-0.049	-0.072	N.G.
329		- 0 0 0 .						
CANOPY								
330-33		-0.135	N.G.	N.G.	-0.034			
	CENTER LI							
-		-0.095	-0.424	-0.579	-0.469	-0.333	0.009	0.188
CANOPY	_							
040-04	4 0 000	0 210						

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

0.218

343-344 0.030

M/M\*

LP

RP

BP

RUN 4 BASIC CANOPY > 24E OVAL INLET > LONG SPLITTER > PT 76 BOUNDARY LAYER DUCT OPEN > BOTH ENGINES OPERATIVE

MO

ALPHA

BETA

	ALPHA		MU	M/M=	LP	, KP		
1	-0.01	-4.13			1.50			•
NR	PTC	PSC	-		K	L	WC	M/MO
0.999	2132	9 2009	•2 200	0.7	1.37	0.95	1.23	0.790
		TOTA	PRESSU	RE RATIO	S. PT/PT	T n		
INLET R	AVE	I O I A	LINEGOO	ME MAIL				
	8 U.9905	0.9942	0.9920	0.0971	1.0006	1.0006	1.0005	N.G.
	-		-	0.9871		1.0006	_	
-	6 1.0004		1.0004	1.0007	1.0004	0.9998	1.0004	1.0005
	4 1.0005		1.0004	N.G.	1.0006	1.0006	1.0005	1.0006
125-13	0 1.0004	N.G.	1.0004	1.0006	1.0005	1.0006		
BOUNDAR	Y LAYER F	RAKE						
131-13	8 N.G.	0.9985	0.9929	N.G.	0.9593	N.G.	0.9998	0.9996
	2 0.9938	0.9813	0.9606	0.9473				
	Y LAYER D							
	4 0.9432	0.9101						
142-14	4 007432	0.9101						
		• • • •						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA						-		
201-20	6 2005.7	2014.7	2018.4	N.G.	1998•1	N.G.		
RAKE BU	LLET							
207-21	2 1971.8	1974.1	1975.2	1976.0	1972.1	N.G.		
TOP								
	0 2026.3	2092.9	N.G.	1946.7	1945.8	1961.1	1965.6	1971.0
	4 1980.0	2031.1	2032.5	2028.3				
SIDE	4 170000		203203	202003				
	2 2136.4	2011.6	1906.6	1879.8	1911.7	1930.6	1931.7	1945.8
		_			171101	1730.0	173101	134240
233-23		N.G.	2026.6	2044 • 1				
SPLITTE			-					
237-24	4 2136.4	N.G.	N.G.	2000•3	1991•3	2008.8	2003.1	1988.7
245	1985.1							
BOTTOM	•							
301-30	8 N.G.	1968.5	1979.5	1984.8	1987.4	1993.3	2010.7	2015.3
309	2018.6							
		STATIC	DDECCHD	E COEFFI	CIENTS	CP		
MACCIAE	700	SIMILE	FRESSOR	L COLFT	CILIVISA	Cr		
NACELLE		0 262	N C	N C	A) C	.0.220	- 0 225	A) C
310-31		-0.253	N.G.	N.G.	N.G.	-0.239	-0.225	N.G.
318-32	0 N.G.	-0.128	-0.059					
NACELLE	SIDE							
321-32	8 N.G.	0.211	0.114	0.032	-0.019	-0.087	-0.094	N.G.
329	-0.173							-
CANOPY								
330-33		-0.138	N.G.	N.G.	-0.024			
	CENTER LI				-1027			
-			-6. 4.22	-0 577	-0 440	-0 220	0.039	0.351
335-34	_ ·	-0.099	-00433	-0.577	-0.469	-0.329	0.038	0.251
CANOPY								
343-34	4 0.052	0.266						

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 77 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	M0	M/M*	LP	RP	-	
ALD.		3.87			1.50		1 OPE	
NR	PTC				K	L	WC	M/MO
1.000	2134	•6 2012	•7 200	5.9	1.17	0.81	1.22	0.784
		7074	. DDccc.	0- 04-1	).c	- 4		
INLET I	DAVE	IOIA	L PKESSU	KE KAII	OS. PT/P	10		
	08 0.9969	U.9989	0.0004	0.0801	1 000/	0.9994	1 . 0005	N.G.
	16 1.0005		0.9996 1.0005	0.9891 1.0008	1.0004 1.0004	-	1.0005	1.0006
	24 1.0005		1.0007	N•G•	1.0004	1.0008 1.0004	1.0006 1.0004	1.0004
	30 1.0005	N.G.	1.0007	1.0005	1.0005	1.0004	1.0004	1.0004
	RY LAYER		1.0008	1.0003	1.0005	1.0000		
			0 0020	N. C	0.0697	AL C	1 - 0000	1.0000
131-13			0.9930	N•G• 0•9483	0.9587	N.G.	1.0000	1.0000
_	2 0.9949		0.9612	0.7403				
	RY LAYER							
143-14	4 0.9429	0.9086						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	\LL							
	6 2008.5	2018.7	2020.4	N.G.	2003.1	N.G.		
RAKE BU								
	2 1977.7	1980.6	1982.8	1981.7	1977.7	N.G.		
TOP								
	0 1959.1	2115.8	N.G.	2006.2	2000.6	2007.1	2005.1	2007.1
	4 2008.8	2036.2	2036.5	2031.9				200.02
SIDE		203002						
	12 1920.7	2135.0	2098.6	2044.9	2030•5	2019.2	2008.8	2004.3
	6 2002.6	N.G.	2035.3	2050.3	203003	201742	200000	200403
SPLITTE		11.00	203363	200000				
	. A 2134.7	N.G.	N.G.	1978.0	1978•9	2003.7	2004.3	1992.7
-	1990.2	14.0.	140130	197000	19/009	200361	2004.5	177201
245	1990.2							
BOTTOM	10 N.C	2026 2	2026 0	2025.0	2022.2	2021.7	2021.0	2022 0
		2036.3	2030.0	2035.0	203202	202107	2021.9	2023.0
309	2023.7							
		CTATIC	DDCCCUD		CLENTS.	60		
NACELLE	TOD	STATIC	PRESSUR	E COEFFI	CIENTS	CP		
310-31		-0 397	N.G.	N.G.	N.G.	-0.279	-0.241	N.G.
				14.0.	N.O.	-06219	-00241	14.0.
318-32		-0.161	-0.073			•		
NACELLE		0 770	0 500	0.544	0 505	0 / 0 7	0 000	A1 - 2
321-32		-0.770	-0.598	-0.544	-0.505	-0.437	-0.283	N.G.
329	-0.246							
CANOPY	-		<b></b> -					
330-33			N.G.	N.G.	-0.104			
	CENTER L		0 4 0 0					
	_	-0.092	-0.430	-0.583	-0.471	-0.331	0.034	0.246
CANOPY								
343-34	4 0.013	0.215						

### INLET PRESSURE SURVEY 1/5 SCALE MODEL CTOL FLIGHT REGIME RYAN VZ-11 AIRCRAFT

RUN 4 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, BOTH ENGINES OPERATIVE

					LP			
410					2.00			
NR () OOO		PSC			K	L	WC	M/M0
0.999	2133	• / 1963	•0 195	2 • 3	1.79	1 • 30	1.43	0.913
		TOTA	, DDESCI	IDE DATIC	OS. PT/P	TO		
INLET	DAVE	1014	L PRESSU	ME MAIL	731 F17F	10		
	08 0.9910	0.9987	1.0000	0.9829	1.0005	0.9996	1.0004	N.G.
_	16 1.0006		1.0004			1.0007	1.0004	1.0007
	24 1.0007		1.0005			_	1.0006	1.0005
	30 1.0006	•		1.0006		1.0007	10000	10000
	RY LAYER I		10004	10000	10004	1.000		
	38 N.G.		0.9955	NAG.	0.9596	N.G.	1.0000	1.0000
	42 0.9965	_	0.9621			1100	10000	10000
	RY LAYER I		0.021	007413				
	44 0.9387							
143 1		00,000						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE W								
	06 1956.6	1970.4	1976.3	N•G•	1948•6	N.G.		
RAKE BI								
_	12 1911.9	1915.3	1921.3	1917.9	1912.2	N.G.		
TOP			F. 5					
	20 2039.3	2078.8		1929.2	1930.6	1944.1	1945.0	1949.2
	24 1951.8	1995•2	1995.5	1989.0				
SIDE		-112 21 -						
	32 2012.2		<del>-</del>	1976.3	1964.7	1955.4	1948.6	1939.3
	36 1939•3	N.G.	1992•4	2015.6				
SPLITT		_						
	44 2135.0	N.G.	N.G.	1916.7		1951.5	1951.2	1934.2
245	1930.9				•			
BOTTOM	. =							
	08 N.G.	1987.7	1989.2	1988.9	1985.9	1973.6	1974.6	1976.9
309	1977.7							
		C = A T 1 C	DDFCCUD	r coeres	CIENTS	60		
	*00	STATIC	PRESSUR	E COEFFI	CIENIS	CP		
NACELLE		0 221	A) C	<b>A</b> 1. C	A) C	0 242	0 226	N C
310-3				N•G•	N.G.	-0.242	-0.226	N.G.
318-37		-0.137	-0.000					
NACELLE		-0.501	-0 403	-0.466	-0 453	-0 400	-0.262	N.G.
321-32		-0.591	-0.473	-0 4 40 3	-0.453	-0.400	-0.263	14.0.
329								
CANOPY		-0 339	N.G.	N.G.	-0.115			
330-33		-0.328	14 6 0 6	14.0.0	-0115			
	CENTER L1 2 0.516		-0-434	-0.589	-0.481	-0.345	0.002	0.180
CANOPY	_	-0,077	00434		0401	U # 5 # 5	-1002	21100
	4 -0.011	0.166						
242 <b>-3</b> 4	-00011	A 100						

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 79 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA		MO			RP	BP OPEN	ı
NR			PS		2•50 K			M/MO
	-	_			2.42	L 1.62	1.57	
V 6 7 7 7	2132	1 1921	• 6 190	0 0	2042	100	1007	10000
		TOTA	I PRESSU	RE RATIO	OS. PT/P	TΛ		
INLET F	AKE	1017	LINESSO	NE KATA	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	. 0		
	8 U.9866	0.49976	1.0000	U•9766	1.0006	1.0000	1.0004	N.G.
	6 1.0000		1.0007	0.9996	1.0005	1.0008	1.0002	1.0008
	4 1.0006	_	1.0004		1.0005	1.0004	1.0006	1.0004
	0 1.0004	_	1.0004	1.0005	1.0004	1.0005	140000	100004
	Y LAYER I		1.0004	1.0003	1 . 0004	1.0005		
	N.G.		0.9966	N.G.	0.9602	N.G.	1.0000	1.0000
	2 0.9971			0.9466	0 0 7002	1100	10000	1.0000
	Y LAYER I		0.7020	0.7400				
	4 0.9354							
143-14	4 087334	0.9000						
		1.6.1	ET CTATI	C DULCCI	JRES. PS			
RAKE WA	(1 1	1146	EL SIMIT	C PRESSO	JKES# PS			
	6 1914.5	1930.3	1938.5	N.G.	1903.8	N.G.		
RAKE BU		193003	193063	14.0.	190340	11.0.		
	2 1858.3	1862.8	1870.2	1865.6	1859•4	N.G.		
TOP	2 102043	1002.0	107082	1005.0	100904	N. C.		
-	2085.0	2037.9	N.G.	1863.1	1872.1	1890.5	1895.6	1902.3
	4 1907.4	1962.2	1962.2	1953.7	10/201	107003	107500	170213
SIDE	4 19074	170202	170202	193367				
_	2 2062.2	2100.3	1940.7	1912.2	1908.0	1901.2	1895.3	1885.7
233-23		N•G•	1958.8	1986.8	1700.0	170102	109703	100741
SPLITTE	-	NOO	193000	1,0000				
	4 2135.3	N.G.	N.G.	1868.7	1868.7	1908.0	1907.7	1886.8
245	1882.9	Nece		100007	1000*/	1700.0	190101	100000
BOTTOM	100267							
	H Nafa	1944.7	1949.4	1950.8	1948.0	1922.9	1936.5	1030.6
309	1939.8	174401	174763	177000	174010	1/32 0/	173007	193960
507	193960							
		STATIC	DDLCCID	E COLEET	CIENTS.	СР		
NACELLE	TOP	SIAIIC	I NESSON	L COLVII	CILITION	Cr		
310-31		-0.114	N.G.	NaGa	N.G.	-0.221	-0.220	N.G.
318-32			-0.069	.,,,,,			•••	,,,,,,,
NACELLE								
321-32		-0.471	-0.420	-0.416	-0.413	-0.377	-0.253	N.G.
329	-0.233	• • • • •			00.125	003		
CANOPY								
330-33		-0.324	N.G.	N.G.	-0.124			
	CENTER LI	-						
			-0.439	-0.593	-0 • 488	-0.355	-0.022	0.128
CANOPY		•						
		0.128						

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 80 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RP	BP	
	0.00	-0.12	0.399	0.641	2.51	-0.03	OPEN	f
NR	PTC		PS	В	K	L	WC	M/MO
Ú.998	2130	1 1911	•6 189	9.5	1.99	1.82	1.59	1.020
		TOTA	L PRESSU	RE RATIO	DS. PT/P	ГО		
INLET R								
	8 1.0001		1.0004			0.9859	1.0004	N.G.
	6 1.0006		1.0001		1.0005	1.0006	1.0004	0.9981
	4 1.0006			N.G.		1.0005	1.0006	1.0004
_	0 1.0004		1.0005	1.0004	1.0004	1.0007		
-	Y LAYER F							
131-13				N.G.	0.9542	N.G.	1.0000	0.9979
	2 0.9851		0.9558	0.9488				
	Y LAYER D							
143-14	4 0.9478	0.9115						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA								
	6 1899.8	1921.3	1932.0	N.G.	1 <b>893</b> •3	N.G.		
RAKE BU								
	2 1847.0	1853.2	1858.3	1855.5	1848.1	N.G.		
TOP								
	0 1867.6	2131.6		2041.8	2026.0	2024.9	2017.5	2011.6
_	4 2007.1	1954.0	1953.4	1949.2				
SIDE								
	2 2006.2		2083.0	2034.2	2019.8	2010.8	1999.5	1989.0
233-23	6 1982.2	N.G.	1963.0	1986.2				
SPLITTE	₹							
237-24	4 1751.0	N.G.	N.G.	1570.6	1717.7	1823.3	1867.9	1872.1
245	1874.7							
BOTTOM								
301-30	B N.G.	2054.9	2049.6	2046.2	2042.1	2016.8	1968.0	1939.1
309	1933.7							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	-							
				N.G.	N.G.	-0.310	-0.240	N.G.
318-32	O N.G.	-0·123	-0.052					
NACELLE								
321-32	B N.G.	-0.451	-0.361	-0.346	-0.338	-0.307	-0.202	N.G.
329	-0.215							
CANOPY S	SIDE							
330-334	N.G.	-0.210	N.G.	N.G.	-0.021			
	CENTER LI							
335-34	2 0.529	-0.091	-0.407	-0.553	-0.435	-0.289	0.122	0.383
CANOPY S	SIDE							
343-344	0.096	0.318						

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 81 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

PT 81	BOUN	DARY LAYE	R DUCT	PEN. L/H	ENGINE	OPERATIV	E	
A	LPHA	BETA	МО	M/M*	LP	RP	BF	)
	0.00	-0.12	0.400	0.610	1.99	-0.0	3 OPE	N
NR		PSC				L		
0.998	2130	6 1935	•3 192	24 • 4	1.93	1.63	1.51	0.969
		ATOTA	L PRESSI	JRE RATIO	S. PT/P	TO		
INLET RA								
		1.0004				0.9867		N.G.
		0.9905				1.0007	1.0005	
			_	N.G.	_	1.0005	1.0007	1.0005
	-	N.G.	1.0006	1.0008	1.0005	1.0006		
BOUNDARY								
		0.9970		N.G.	0.9512	N.G.	1.0000	0.9975
	_	0.9688	0.9526	0.9461				
BOUNDARY								
143-144	0.9433	0.9034						
	•	• • • •						
• • • • • • • • • • • • • • • • • • • •		INL	ET STAT	IC PRESSU	IRES PS			
RAKE WAL			1050			20.7		
	1924.9	1944.7	1953.2	N.G.	1918.4	N.G.		
RAKE BUL								
	1878.1	1882.9	1887.1	1885.7	1877.8	N.G.		
TOP	1000 "	2121 0	۸, ۵	205/ 2	2222	2027 0		
	1809.5		N.G.		2039.8	2037.9	2029.7	2024.9
221-224	2020.6	1972.6	1973.2	1969.3				
SIDE	10// 7	2126	2007 4	2062 (	2027 (	2024 (	2012 0	2005 4
225-232			2097.4	_	2037.6	2024.6	2013.9	2005 • 4
233-236	1998.9	N.G.	1981.4	2002.3				
SPLITTER	1707 (	N. C	N 6	1400 4	1750 0	105/ 2	1005 2	1000 0
	1787.4	N.G.	N.G.	1630.4	1759•2	1856 • 3	1895.3	1899.2
245	1901.8							
BOTTOM	N.G.	2044 7	2050.8	2056.0	2051.0	2028 6	1984.8	1050.5
301-308		2004.	2059.6	2036.0	203109	2020.0	170440	1959.5
309	1954.4							
		57 47 16	DDECCUE		CIENTS.	60		
NACELLE	TOD	STATIC	PKESSUR	RE COEFFI	CIENISI	CP		
NACELLE 310-317		-0.721	N.G.	N.G.	N.G.	-0-410	-0.323	N.G.
318-320		-	-0.127	14.0.	4.0	-01410	-0.363	14.0.0
NACELLE		-00202	-01121					
		-0.594	-0.494	-0.450	-0.440	-0.399	-0-390	N C
321-328		-0.596	-0,400	-0.490	-0 • 440	-00577	-0.270	N.G.
329	-0.301							
CANOPY S		-0.273	N.G.	N.G.	-0.077			
CANOPY C		_	11808	14.00	-00011			
TANDET C	PHIEK FI	INE OF THE						

335-342 0.506 -0.134 -0.482 -0.634 -0.508 -0.356 0.083 0.362

READ TUBES HORIZONTALLY AND CONSECUTIVELY.

N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

CANOPY SIDE

343-344 0.053 0.292

### INLET PRESSURE SURVEY 1/5 SCALE MODEL RYAN

RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN	4	BASIC CANOPY , 24E OVAL INLET , LONG SPLITTER )
PT	82	BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA 0.00	BETA -0.12	M0	M/M*	LP 1•50	RP <b>−</b> 0•0		
NR	PTC	•			K 1050	_0.0	WC OF E	M/M0
0.999	· -		_	9.5		1.15		
06777	2131	• , 1 , , ,	170	,,,,	1002	1017	1020	00022
		TOTA	I PRESSI	RE RATIO	S. PT/P	TO		
INLET F	PAKE		E THEODE	WE WATER	37			
	8 1.0004	1.0005	1.0007	0.9883	0.9845	0.9899	1.0006	N.G.
	16 1.0004		1.0000	0.9960	1.0005			
	24 1.0006	-	1.0004	N•G•	1.0005		1.0006	1.0001
	0 1.0005		1.0004	1.0007	1.0007	1.0004	1.0000	10001
	RY LAYER I		1,0000	1.0001	1.0007	100004		
131-13		0.9950	0.9760	N.G.	0.9506	N.G.	0.9996	0.9935
	2 0.9780		0.9513		0.7500	Ness	0.,,,0	007777
	RY LAYER I		00,010	047400				
	4 0.9451							
143-14	4 003437	049023						
		TAH	ET CTATI	C DDFCCI	JRES. PS			
RAKE WA		1116	LI SINII	C FRESSE	KL31 F3			
	6 1990.4	2002.9	2009.1	N.G.	1984.5	N.G.		
RAKE BU		200249	20091	N.O.	190403	N.G.		
	2 1957.1	1960.8	1963.9	1963.0	1957.4	N.G.		
TOP	12 195/61	1760.0	190309	190300	193764	N. O.		
	0 1740.6	2132.5	N.G.	2086.7	2071.8	2068 - 6	2062.4	2058.8
	4 2055.1	2022.6	2023.2	2019.5	201100	2000.0	2002.4	203010
	4 2055.1	2022.6	202362	201963				
SIDE	2 1000.1	2125.8	2121.2	2095.4	2073•2	2062.6	2053.4	2046.6
	12 1909.1	2135.8		2085.6	201302	2003.0	2033.4	204010
	6 2041.3	N.G.	2029•1	2042.7				
SPLITTE		N G	A) C	1707 7	1072 2	1020 2	1044 7	1071 2
	4 1889,4	N.G.	N.G.	1787.7	1873.3	1939.3	1966.7	1971.2
245	1973.8							
BOTTOM				- 0				
	8 N.G.	2091.0	2083.8	2079.7	2076.4	2057.0	2030.4	2012.5
309	2009.1							
		STATIC	PRESSUR	E COEFFI	CIENTS	CP		
NACELLE			=	7	7. 2			
310-31				N.G.	N.G.	-0.407	-0.310	N.G.
318-32		-0.185	-0.112					
NACELLE			=		=			=
321-32		-0.674	-0.519	-0.474	-0.447	-0.394	-0.276	N.G.
329	-0.279							
CANOPY				4				
330-33		-0.251	N.G.	N.G.	-0.050			
	CENTER LI							
		-0.114	-0.456	-0.603	-0.478	-0.329	0.115	0.395
CANOPY		_						
343-34	4 0.087	0.329						

### INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT 1/5 SCALE MODEL

CTOL FLIGHT REGIME

4 BASIC CANOPY . 24E OVAL INLET . LONG SPLITTER . RUN BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE PT 83

	ALPHA	BETA	MO	M/M*	LP	RP	= :	
		-0.12			1.50	-0.0		
NR	PTC				K	L	WC	M/MO
0.998	2131	4 1992	•3 198	14.7	1.96	1.21	1.30	0.831
		TOTA		IDE DATE	0.5			
INLET F	AVE	IUIA	L PRESSU	KE KAII	OS. PT/P	10		
	B 1.0004	1.0004	1.0005	0.9880	0.9812	0.9887	1.0005	N.G.
	6 1.0007	_	1.0002	0.9953	1.0004	1.0006	1.0001	0.9999
	4 1.0005	0.9992	1.0004	N•G•	_	1.0004	1.0006	1.0005
	0 1.0006	N•G•	1.0004	1.0007		1.0004	1.0000	1.0003
	Y LAYER I		10000	10000	10004	10000		
131-13			0.9926	N.G.	0.9610	N.G.	1.0002	1.0001
_	2 0.9944		0.9634	0.9548				
-	Y LAYER I							
143-14	4 0.9499	0.9061						
		INL	ET STATI	C PRESSU	IRES. PS			
RAKE WA	LL							
201-20	6 1985.6	1999.2	2005.1	N.G.	1979.4	N.G.		
RAKE BL								
	2 1951.8	1955.4	1957•4	1957.4	1951.5	N.G.		
TOP								
	0 1817.9	2133.0	N.G.	2077.7	2065•8	2064.1	2058.8	2053.7
	4 2052.3	2019.0	2018.4	2015.6				
SIDE	2 2046 4	2124 2	2124 0	2002 5	2074 4	2011 7	2054 5	2011
	2 1848.4	2134.2	2126.8	2093.5	2076.6	2064.7	2054.5	2046.6
233-23		N.G.	2025.7	2039.6				
SPLITTE	K 4 1875.0	N.G.	N.G.	1773.9	1864.8	1932.0	1960.5	1965.3
245	1967.8	14.00	14.0.	111307	10040	173200	19000	140242
BOTTOM	140100							
301~30	8 NaGa	2086.7	2081.5	2078.7	2075.7	2058 - 3	2027.6	2008.9
309	2004.8	200011	200103	201001	201301	203043	202110	200007
507	200480							
		STATIC	PRESSUR	E COEFFI	CIENTS.	СР		
NACELLE	TOP	31 M. 13				•		
	7 N.G.	-0.619	N.G.	N.G.	N.G.	-0.338	-0.277	N.G.
318-32	0 N.G.	-0.186	-0.119					
NACELLE	SIDE							
321-32	8 N.G.	-0.845	-0.654	-0.557	-0.530	-0.477	-0.326	N.G.
329	-0,301							
CANOPY								
330-33		-0.201	N.G.	N.G.	-0.059			
	CENTER LI		0.51	0.5				
335-34	_	-0.028	-0.366	-0.531	-0.430	-0.297	0.122	0.419
CANOPY	<b>-</b> .	0 227						
343-34	4 0.089	0.337						

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 84 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA	BETA -0.12	M0 0 • 400	M/M* 0.610	LP 1•99	RP -0•0	_	
NR	PTC	PSC			K 1099	L	WC OF E	M/MO
0.998	2130	_	•5 192	_	2.22	1.66	1.51	0.970
0,770	2130	•0 1734	• 7 172	.701	2022	1,00	1471	00710
		TOTA	I PRESSU	RE RATIO	DS. PT/P	ΤO		
INLET	RAKE	, , ,	L			. •		
	08 1.0002	0.9996	1.0004	0.9829	0.9787	0.9851	1.0005	N.G.
	16 1.0006		1.0000	0.9941	1.0006	1.0008	1.0004	0.9984
	24 1.0005	- •	1.0004	N.G.	1.0005	1.0006	1.0004	1.0004
	30 1.0004	N.G.	1.0005	1.0006	1.0006	1.0006		
	RY LAYER							
131-1		0.9977	0.9949	N.G.	0.9630	N.G.	1.0003	1.0001
	42 0.9959	0.9850	0.9653	0.9550				
	RY LAYER		00.000					
	44 0.9500	0.9065						
		INI	FT STATE	C PRESSU	JRES. PS			
RAKE W	ALL				INCOV 10			
	06 1924.1	1943.6	1952.9	N.G.	1917.6	N.G.		
RAKE BI								
	12 1877.5	1882.6	1888.5	1884.6	1876.6	N.G.		
TOP								
	20 1891.3	2130.2	N.G.	2045.5	2034.5	2033.9	2027.7	2023.5
	24 2019.0	1972.4	1971.5	1967.6				
SIDE								
225-23	32 1919.3	2136.4	2107.3	2062.2	2044.4	2031.4	2020.4	2007 • 4
233-2		N.G.	1981.4	2001.4				
SPLITTE				_				
237-24		N.G.	N.G.	1630.4	1760.3	1853.2	1892.7	1898.1
245	1900.6							
BOTTOM								
301-30	08 N.G.	2064.1	2059.8	2056.5	2053.1	2029 • 4	1984.6	1958.5
309	1953.4							
		STATIC	PRESSUR	L COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-3	17 N.G.	-0.497	N.G.	N.G.	N.G.	-0.306	-0.268	N.G.
318-32	20 N.G.	-0.179	-0.117					
NACELLE	SIDE							
321-32	28 N.G.	-0.727	-0.578	-0.528	-0.507	-0.457	-0.312	N.G.
329	-0.293							
CANOPY	SIDE							
33C-33	84 N.G.	-0.202	N.G.	N.G.	-0.064			
	CENTER L							
	2 0.561		-0.365	-0.528	-0.433	-0.301	0.103	0.392
CANOPY	SIDE							
343-34	4 0.076	0.308						

RUN 4 BASIC CANOPY, 24E OVAL INLET, LONG SPLITTER, BOUNDARY LAYER DUCT OPEN, L/H ENGINE OPERATIVE

		BETA -0.12		M/M* 0•673	LP 2•51	RP BP -0•03 OPEN	N
NR 0•997	PTC 2129		PSB 1870		4 2•0	_	M/M0 1.070

#### TOTAL PRESSURE RATIOS, PT/PTO

INLET RAI	KE							
101-108	1.0004	1.0004	1.0006	0.9798	0.9757	0.9815	1.0006	N.U.
109-116	1.0005	0.9887	1.0001	0.9931	1.0006	1.0010	1.0007	0.9981
117-124	1.0006	0.9989	1.0006	N.G.	1.0001	1.0004	1.0005	1.0005
125-130	1.0005	N.G.	0.9992	1.0006	1.0004	1.0006		
BOUNDARY	LAYER R.	AKE						
131-138	N.G.	0.9990	0.9962	N.G.	0.9636	N.G.	1.0003	1.0002
139-142	0.9973	0.9866	0.9661	0.9547				
BOUNDARY	LAYER D	UCT						
143-144	0.9498	0.9064						

		INL	ET STATI	C PRESSU	IRES. PS			
RAKE WALL								
201-206 18	69.9	1894.7	1906.9	N.G.	1863.7	N.G.		
RAKE BULLET								
207-212 18	10.9	1818.5	1824.7	1819.9	1811.7	N.G.		
TOP								
213-220 19	38.2	2123.4	N.G.	2018.7	2007.1	2008.8	2002.0	1996.4
221-224 19	91.0	1930.3	1931.1	1926.1				
SIDE								
225-232 19	65.0	2135.0	2087.0	2032.2	2015.6	2002.0	1987.6	1974.9
233-236 19	67.0	N.G.	1942.2	1968.4				
SPLITTER								
237-244 17	06.4	N.G.	N.G.	1504.5	1670.0	1785.2	1834.0	1841.1
245 18	43.3							
BOTTOM								
301-308	N.G.	2044.4	2041.4	2038.8	2034.5	2004.8	1948.3	1914.8
309 19	08.6							

309	1908.6							
NACELLE T	(ND	STATIC	PRESSURE	COEFFI	CIENTS.	CP		
310-317	N.G.		N.G.	N.G.	N.G.	-0.293	-0.269	N.G.
NACELLE S		-0.183						
	N.G. -0.294	-0.654	-0.531	-0.497	-0.484	-0.439	-0.311	N.G.
CANOPY SI 330-334	DE N•G•	-0.206	N.G.	N•G•	-0.075			
CANOPY CE								
<del>-</del>		-0.032	-0.371	-0.539	-0.443	-0.310	0.087	0.366
343-344	_	0.284						

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 86 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA	BETA -0.14	M0 0.400	M/M* 0•663	LP 2•51	RP -0•0		
NR	PTC				K	L	WC	M/MO
0.998		• 5 1894		_		1.93		
		7-1-1						•
		TOTA	L PRESSU	JRE RATIO	DS. PT/P	TO		
INLET F								
	08 1.0004		1.0006			0.9877		N.G.
	16 1.0008		1.0000		1.0007	1.0008	1.0008	0.9976
	24 1.0007		1.0007	N.G.	1.0004	1.0006	1.0005	1.0006
	30 1.0005		1.0006	1.0007	1.0007	1.0008		
BOUNDAR	RY LAYER I	RAKE						
131-13	88 N.G.	0.9453	0.9050		0.9421	N.G.	0.9962	0.9834
	2 0.9643	0.9532	0.9415	0.9374				
BOUNDAR	RY LAYER I	DUCT						
143-14	4 0.9375	0.9027						
		TALL	CT CTATI	C DDECCI	IDEC. DC			
RAKE WA	VI I	INL	EI SIAII	C PRESSI	JRES. PS			
	6 1880.0	1904.9	1916.2	N.G.	1875.0	N.G.		
RAKE BL								
	2 1824.7	1831.2	1836.8	1833.5	1825.3	N.G.		
TOP								
	0 1803.2	2134.7	N.G.	2042.4	2022.9	2019.5	2010.5	2004.3
	4 1998.3	1941.3	1940.7					
SIDE								
-	2 2050.3	2123.4	2059.3	2011.6	2004.3	1994.4	1983.1	1973.8
233-23		N.G.	1950.3	1975.5				.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
SPLITTE		.,,,,,,	1,,,,,,	17.505				
237-24		N.G.	N.G.	1525.1	1686•1	1804.4	1849.8	1851.0
245	1854.3	,,,,,,,	.,,,,,	125041	100011	100404	104740	105100
BOTTOM	103463							
301-30	8 N.G.	2052.4	2043.9	2040.1	2034.5	2007.6	1954.9	1924.0
309	1917.8	2032	20.30,	20,001	203402	200.00	100400	172460
307	171100							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP					-		
	7 N.G.	-0.777	N.G.	N.G.	N.G.	-0.423	-0.320	N.G.
318-32			-0.097					
NACELLE								
321-32		-0.327	-0.286	-0.296	-0.300	-0.289	-0.226	N.G.
329	-0.268	<u> </u>						
CANOPY	-							
330-33		-0.294	N.G.	N.G.	-0.053			
	CENTER LI	-			-			
_	2 0.472		-0.542	-0.672	-0.523	-0.352	0.088	0.331
CANOPY	_		_					
	4 0.055	0.280						
-								

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 87 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA	BETA	МО	M/M*	LP	RP	<del>-</del>	
	4.02	-0.14			2.00	-0.0	-	
NR	PTC		_		Κ	L	WC	M/MO
0.998	2130	•2 1938	• 3 192	7.3	1.74	1.55	1.50	0.962
	_	TOTA	L PRESSU	RE RATIO	DS. PT/P	ΤΟ		
INLET R								
	8 1.0004		1.0006	0.9835	0.9845	0.9887	1.0006	N.G.
	6 1.0004		1.0001	0.9963	1.0007	1.0008	1.0005	0.9981
	4 1.0006		1.0006	N.G.	1.0005	1.0004	1.0005	1.0006
125-13	0 1.0005	N.G.	1.0004	1.0006	1.0006	1.0004		
BOUNDAR	Y LAYER !	RAKE						
131-13	8 N.G.	0.9868	0.9604	N.G.	0.9403	N.G.	0.9933	0.9777
139-14	2 0.9587	0.9482	0.9384	0.9358				
BOUNDAR	Y LAYER I	DUCT						
143-14	4 0.9369	0.9020						
		INL	ET STATI	C PRESSU	RES. PS			
RAKE WA	LL							
	6 1928.2	1946.8	1955.6	N.G.	1922.5	N.G.		
RAKE BU	-							
	2 1881.9	1885.5	1890.3	1889.2	1883.0	N.G.		
TOP								
	0 1750.0	2134.0	N.G.	2064.3	2044.5	2040.5	2033.2	2026.4
	4 2021.6	1975.6	1975.9	1971.4				
SIDE		201000						
	2 2018.5	2131.2	2082.6	2039.4	2030.4	2021.3	2009.5	2003.6
	6 1998.2	N.G.	1984.1	2004.1	203001	202103	200,03	200,00
SPLITTE		11000	170401	200401				
	4 1795.5	N.G.	N.G.	1637.6	1763.8	1862.7	1900.5	1903.0
245	1905.6	,,,,,,,		103140	1,0500	100241	1,000	170300
BOTTOM	190580							
301-30	8 N.G.	2071.1	2061.9	2056.5	2052.1	2028.6	1986-4	1961.8
309	1957.2	20/101	2001.7	20000	207201	2020.0	1700.4	190100
309	193762							
			0056640	C COECE!	CIENTS	60		
NACELLE	<b>T</b> OD	STATIC	PRESSUR	F COEFF1	CIENTS.	CP		
NACELLE	-	-0.012	Al . fa .	N.G.	N.G.	-0.449	-0.222	AL G
		-0.912		Nege	NOGO	-0.448	-0.552	N.G.
318-32		-0.182	-0.101					
NACELLE		0 101		0.000				۸. ۵
321-32		-0.404	-0.333	-0.332	-0.342	-0.310	-0.232	N.G.
329	· - ·							
CANOPY		0 000			0 011			
330-33			N.G.	N.G.	-0.051			
	CENTER LI	_	0.515	0 434	0.555			
335-34		-0.201	-0.542	-0.676	-0.527	-0.357	0.097	0.340
CANOPY		_						
343-34	4 0.070	0.288						

MARKET SHIPPING SHIPPING

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 89 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA	BETA	МО	M/M*	LP	RP		
	-0.01	-4.10			1.50			
NR	PTC			_	K	L	WC	M/MO
0.999	2132	•1 1997	.8 199	00.1	1.46	1.09	1.28	0.821
		IOIA	L PRESSU	JRE RATIO	DS. PT/P	10		
INLET	•		• (.005	0.0040	0.0000	0.0043	1 0007	A) C
	08 1.0004		1.0005		0.9930	0.9941	1.0007	N.G.
_	16 1.0004	0.9935	1.0006	0.9989	1.0005	1.0008	1.0006	1.0001
	24 1.0004		1.0007	N.G.	1.0006	1.0006	1.0006	1.0006
	30 1.0005	N.G.	1.0004	1.0004	1.0004	1.0006		
	RY LAYER		0 0771		0.0510		0.005	0.0040
131-13	-	0.9823	0.9771	N.G.	0.9518	N.G.	0.9995	0.9949
	2 0.9784	0.9649	0.9508	0.9462				
	RY LAYER							
143-14	44 0.9436	0.9050						
		T 444		6 55556	1056 06			
DAKE W		INL	ET STATI	C PRESSU	JRES. PS			
RAKE W		2004 1	2000 5	AL .C	1004 2	N G		
	06 1991.4	2004.1	2009.5	N.G.	1986.3	N.G.		
RAKE BU		10/2 0	1045 2	10/2 5	1050 1	N C		
	12 1958.1	1962.0	1965.2	1963.5	1958•1	N.G.		
TOP	20 1700 1	2125 4	A) C	2071 6	2054.4	2055 5	2051.0	2048 4
	20 1788.1	2135.4	N.G.	2071.6	2056•4	2055.5	205180	2048 • 4
	24 2046.2	2024.7	2024.2	2020•2				
SIDE	2070.6	2119.0	2044.5	2020.8	2033•2	2031.2	2027.0	2024•2
	32 2079.5		2064.5	2029 • 8	203302	2031.2	202780	202462
	36 2022.5	N.G.	2029.0	2042.5				
SPLITTE		A) C	A) C	1004 0	1002 6	1050 2	1074.5	1072 2
	4 1913.8	N.G.	N.G.	1806.8	1883.6	1950•2	1974.5	1973.3
245	1973.9							
BOTTOM	NO 41 6	2019 5	2044 7	2042 1	2061-1	2040 6	2027.4	2013.5
301-30		200000	2004.1	200361	2061•1	2049•6	2027.6	201365
309	2009.7							
		CTATIC	DOECCUO	E COEFE!	CIENTS	CD		
NACELLE		STATIC	PRESSUR	E CUEPFI	CIENTS.	CP		
NACELLE		-0.755	N.G	N.G.	N.G.	-0.399	-0.316	N.G.
_	17 N.G.			N.G.	N•0•	-0.399	-0.316	14.04
318-32		-0.198	-0.121					
NACELLE		-0.127	0 121	0.147	0 199	0 211	-0 170	AL .C
321-32		-0.137	-0.131	-0.10/	-0.188	-0.211	-0.178	N.G.
329								
CANOPY		0.140	A) _ C		-0 010			
330-33			N.G.	N.G.	-0.013			
	CENTER L		0 445	0 (00	0 400	0 000	0 100	0 -0:
_		-0.127	<b>-</b> 0•462	-0.609	-0.483	-0.333	0.108	0.394
CANOPY		0.057						
343-34	4 0.099	0.357						

## INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 4 CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 90 MIL DARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	M <b>0</b> 962
0.999 2131.3 1942.0 1931.6 2.42 1.52 1.49 0.	962
TOTAL PRESSURE RATIOS. PT/PTO	
INLET RAKE	_
	.G.
	999
	006
125-130 1.0006 N.G. 1.0006 1.0007 1.0004 1.0006	
BOUNDARY LAYER RAKE	
	973
139-142 0.9834 0.9694 0.9536 0.9469	
BOUNDARY LAYER DUCT	
143-144 0.9432 0.9053	
INLET STATIC PRESSURES. PS	
RAKE WALL	
201-206 1932.4 1950.2 1958.9 N.G. 1926.5 N.G.	
RAKE BULLET	
207-212 1886.7 1891.5 1898.0 1893.2 1886.4 N.G.	
TOP	
	6.0
221-224 2012.6 1981.8 1979.0 1973.3	
SIDE	
225-232 2108.3 2096.2 2020.8 1983.5 1990.0 1989.2 1987.7 198	1.0
233-236 1979.8 N.G. 1984.9 2005.8	
SPLITTER	
237-244 1818.1 N.G. N.G. 1662.5 1783.0 1877.9 1911.8 190	7.3
245 1907•3	
BOTTOM	
301-308 N.G. 2040.6 2038.3 2037.6 2034.2 2020.2 1986.1 196	5.7
309 1961.1	
STATIC PRESSURE COEFFICIENTS. CP	
NACELLE TOP	
310-317 N.G0.618 N.G. N.G. N.G0.377 -0.310 N	•G•
318-320 N.G0.194 -0.123	
NACELLE SIDE	
	•G•
329 -0.242	<del>-</del>
CANOPY SIDE	
330-334 N.G0.172 N.G. N.G0.036	
CANOPY CENTER LINE	
	367
CANOPY SIDE	,
343-344 0.080 0.329	

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 91 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	LPHA -0.01				LP 2•51			
NR	PTC		PS		K 2•51	L -000	WC WC	M/MO
0.998		•9 1893			3.07	1.88		
0.770	212)	• / 10/3	•0 107	<b>7</b> • 7	3.07	1.00	1000	10000
		TOTA	I PRESSU	RE RATIO	S. PT/P	τo		
INLET RA	KE	, , , ,	L . NEGOO			•		
	1.0002	1.0002	1.0004	0.9702	0.9915	0.9927	1.0006	N.G.
	1.0006		1.0008	0.9980	1.0007	1.0008		0.9996
	1.0004		_		1.0006	1.0007	1.0006	1.0007
	1.0004				1.0005	1.0007		
BOUNDARY			-					
131-138	N.G.	0.9932	0.9850	N.G.	0.9547	N.G.	1.0000	0.9984
139-142	0.9861	0.9722	0.9551	0.9471				
BOUNDARY	LAYER I	DUCT						
143-144	0.9430	0.9049						
		INL	ET STATI	C PRESSU	IRES. PS			
RAKE WAL								
201-206	1881.6	1904.4	1914.3	N.G.	1874.2	N.G.		
RAKE BUL								
	1823.1	1829.3	1837.8	1831.9	18?3•4	N.G.		
TOP								
	1910.1	2126.7		2010.0	1995•9	1997.6	1992•3	1989•2
	1984•4	1942.3	1941.2	1933.2				
SIDE								
	2121.6		1984.1	1944.0	1955.8	1956.1	1953.6	1946 • 2
233-236		N.G.	1950.2	1973.3				
SPLITTER								
	1745.8	N.G.	N.G.	1543.6	1697.8	1814.1	1855.9	1850.8
245	1851.9							
BOTTOM								
		2017.1	2016.8	2017.1	2014.5	1994.8	1950.1	1923.7
309	1917.8							
			DD En cuid	E	415454	-0		
== =		STATIC	PRESSUR	E COEFF!	CIENTS.	CP		
NACELLE		0.555	•• •	•• (		0 044	0 001	N 6
310-317				N•G•	N.G.	-0 - 364	-0.301	N.G.
318-320		-0.188	-0.123					
NACELLE		0 ()14	0 027	0.006	0 12/	0 176	-0.145	A. C
321-328		0.019	-0.037	-0.096	-0.134	-0.175	-0.105	N.G.
329	_							
CANOPY S		-0.168	N.G.	N.G.	-0.036			
330-334 CANOPY C			14.0.0	4.0	-0 0 0 0 0 0			
		-0.127	-0-463	-0.615	-0.492	-0 - 344	0.074	0.350
CANOPY S		00121	U = 70 J	04017	0 4 7 2	~ • J ¬ ¬	00017	<del>4</del> 3 3 0 ·
-	0.068	0.310						
J7 J7 J44	V. U00	0.010						

### INLET PRESSURE SURVEY

RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 92 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	ALPHA -0.01	BETA 3.86	M0 0•396	M/M* 0•657			BP. OPEN	
NR	PTC	PSC			K	L	WC	M/MO
0.999				7.2		1.92	1.63	1.053
				•				
		TOTA	L PRESSU	RE RATIO	S. PT/P	10		
INLET R	AKE							
101-10	8 0.9999	1.0006	1.0006	0.9953	0.9749	0.9902	1.0004	N.G.
109-11	6 1.0004	0.9956	1.0001	0.9969	1.0006	1.0010	1.0007	1.0004
117-12	4 1.0007	0.9996	1.0007	N.G.	1.0006	1.0007	1.0005	1.0007
125-13	0 1.0008	N.G.	1.0006	1.0007	1.0007	1.0008		
BOUNDAR	Y LAYER I	RAKE						
131-13	8 N.G.	0.9964	0.9847	N.G.	0.9508	N.G.	0.9998	0.9988
139-14	2 0.9870	0.9726	0.9542	0.9454				
BOUNDAR	Y LAYER	DUCT						
143-14	4 0.9424	0.9051						
		INL	ET STATI	C PRESSU	JRES PS			
RAKE WA	LL							
	6 1888.1	1910.1	1921.4	N.G.	1880.4	N.G.		
RAKE BU	LLET							
	2 1832.2	1838.9	1844.0	1840.4	1833.9	N.G.		
TOP								
213-22	0 1815.5	2126.9	N.G.	2052.7	2037.2	2034.3	2025.0	2017.4
	4 2010.6	1947.9	1945.4	1938.3				
SIDE			_					
	2 1789.3	2132.0	2125.5	2082.6	2054.9	2039.4	2021.6	2'07.2
233-23		N.G.	1957.5	1979.6				
SPLITTE		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
237-24		N.G.	N.G.	1505.2	1682.2	1807.6	1857.0	1857.3
245	1857.3							
BOTTOM								
	8 N.G.	2067.0	2060.6	2055.2	2050.6	2019.7	1961.8	1928 • 1
309	1922.7							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP				C.E	•		
310-31		-0.730	N.G.	N.G.	N.G.	-0.407	-0.326	N.G.
318-32		-0.217				• • • • •		
NACELLE								
321-32	-	-1.086	-0.791	-0.693	-0.645	-0.549	-0.365	N.G.
329	-0.314	2000						
CANOPY								
330-33		-0.364	N.G.	N.G.	-0.125			
	CENTER LI	-	<del>-</del>					
	2 0.502		-0.473	-0.625	-0.506	-0.354	0.069	0.338
CANOPY								
	4 0.027	0.241						

ALPHA BETA MO M/M\* LP RP BP

RUN 4 BASIC CANOPY. 24E OVAL INLET. LONG SPLITTER.
PT 93 BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

	-0.01		0.398					
ALD.					2.02			
NR	PTC	PSC	_	-	K	L	WC	M/MO
U, 999	2131	•6 1941	•2 193	1.6	2.03	1•46	1.50	0.963
		TOTA	L PRESSU	RE RATIO	DS. PT/P	TO		
INLET F								
	08 1.0000		1.0007			0.9933	1.0008	N.G.
109-11	16 1.0005	0.9939	1.0001	0.9984	1.0004	1.0010	1.0008	1.0000
117-12	24 0.9998	1.0000	1.0007	N.G.	1.0005	1.0006	1.0006	1.0006
125-13	30 1.0005	N.G.	1.0005	1.0007	1.0005	1.0007		
BOUNDAR	RY LAYER I	RAKE						
131-13	88 N.G.	0.9969	Û•9821	N.G.	0.9493	N.G.	1.0002	0.9979
	2 0.9644		0.9527					
BOUNDAR								
	4 0.9420							
147 1	14 017420	047043						
		TALL	ET STATI	C DDFCCI	JRES. PS			
RAKE WA	<b></b>	1111	EI SIKII	C FRESSE	KLSV FS			
	6 1932.1	1950.8	1956.4	N.G.	1925.3	N.G.		
RAKE BU		177000	175004		172343	1100		
		1001 6	1006 7	1002 7	1007 6	N C		
	12 1887.2	1891.5	1895.7	1893.7	1887.5	N.G.		
TOP	10 17/2 0	2124	<b>A</b> 1. C	2072 /	2054	20(2.3	2011	2020 2
	20 1763.0	2126.4	N.G.	2072.4	2056 • 4	2053.2	2044.8	2038.3
_	24 2032.4	1981.8	1978.7	1974.2				
SIDE								
	12 1729.1	2123.8	2132.9		2077.5	2060.9	2045.6	2032•6
233-23	6 2023.3	N.G.	1990.3	2007.2				
SPLITTE	R							
237-24	4 1749.2	N.G.	N.G.	1606.6	1757•1	1864 • 4	1904.7	1905.0
245	1907.0							
MCTTOS								
301-30	8 N.G.	2081.0	2074.7	2070.3	2065.2	2039.4	1991.8	1961.8
309	1959.3							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31		-0.819	N.G.	N.G.	N.G.	-0.423	-0.330	N.G.
318-32			-0.138		.,,,,,	*****	00330	
NACELLE		-0.201	-0.130					
321-32		_1 194	-0.826	-0.730	-0.669	-0.560	-0 270	AL C
		-1.184	-0.020	-06/30	-0.009	-0.560	-0.370	N.G.
329	-0.315							
CANOPY		-0.040	A1 6	N. 6	0			
330-33		-0.363	N.G.	N.G.	-0.118			
	CENTER LI							
-	2 0.502	-0.124	-0.471	-0.622	-0.498	-0.344	0.082	0.351
CANOPY								
343-34	4 0.038	0.252						

### INLET PRESSURE SURVEY 1/5 SCALE MODEL

RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN	5	BASIC CANOPY, 30E DUAL INLET, DUAL INLET SPLITTER
PT	1	BOUNDARY LAYER DUCT OPEN. BUTH ENGINES OPERATIVE

					2			
	ALPHA	BETA	МО	M/M*	LP	RP	ВР	
	-0.01	-0.12			2.00		OPE	N
NR		PSC				L	WC	M/MO
					34.48		2.11	0.940
		TOTA	L PRESSU	RE RATI	OS. PT/P1	ГО		
INLET F	RAKE							
101-10	08 0.9903	0.9971	1.0011	0.6618	0.9771	0.9910	1.0011	N.G.
	16 1.0011		1.0011	1.0011			1.0010	0.9987
			0.9848	N.G.	1.0007		1.0008	1.0008
125-13	30 1.0006	N.G.	1.0007	1.0008	1.0007	1.0008		
	RY LAYER I							
		0.8584				N.G.	0.8588	0.8587
	2 0.8587		0.8587	0.8587				
	RY LAYER	- <del>-</del> -						
143-14	4 0.9406	0.8834						
_		INL	ET STATI	C PRESS	URES. PS			
RAKE W								
	6 1676.2	1672.5	1638.9	N.G.	1562.7	N.G.		
RAKE BU						• • •		
	12 1464.7	1469.5	1477.1	1467.8	1460.2	N.G.		
TOP	10 2057 A	1014 5	<b>A</b> 1. C	1440 0	1500 0	1577 /	1602 /	1505 0
	20 2057.0	_	N.G.	1469.8	1539.8	1577.6	1593.4	1585.0
	24 1572.0	1649.9	1730.9	1760.0				
SIDE	12 1054 4	2081.3	1730.9	1502 4	1500.1	1627.3	1624 1	1620 1
	32 1856.6 36 1619.4	N.G.	1700.7	1593.4 1735.5	159901	102/03	1034.1	1630.1
SPLITTE		N.O.	1700.7	1/3265				
	4 2130.7	N.G.	N.G.	2041.8	1303.7	1507.0	1638.6	1679.3
245	1732.3	N. G.	11.0.	2041.0	130307	1507.0	1030.0	101703
BOTTOM								
301-30		1604-5	1649.5	1662.1	1667.2	1651.3	1679.5	1681.0
309	1693.8	100403	101767	100111	100/12	103103	201747	100110
307	10,500							
		STATIC	PRESSUR	E COEFF	ICIENTS.	CP		
NACELLE	TOP							
310-31		-0.254	N.G.	N.G.	N.G.	0.441	0.457	N.G.
318-32			0.514		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
NACELLE								
321-32		-1.073	-0.482	0.378	0.397	0.426	0.554	N.G.
329	0.554							
CANOPY	•							
330-33		0.413	N.G.	N.G.	0.518			
	CENTER L				-			
	2 0.861	0.515	0.289	0.129	0.235	0.346	0.554	0.554
CANOPY	SIDE							
343-34	4 0.571	0.666						

RUN	5	BASIC CANOPY . 30E DUAL INLET . DUAL INLET SPLITTER
PT	2	BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA				LP			
		-0.12						
NR	_	PSC		-	K	L	WC	M/MO
0.990	2110	<b>.</b> 8 1784	•9 174	7.7	23.72	3.56	1.86	0.828
		TOTA	L PRESSU	RE RATI	OS. PT/P	TO		
INLET								
		1.0002					1.0011	
		0.9753					1.0013	
	24 1.0012				1.0008		1.0011	1.0011
	30 1.0011		1.0012	1.0013	1.0013	1.0014		
	RY LAYER						- 10-2	
131-1		0.8587				N.G.	0.8588	0.8583
	42 0.8588		0.8587	0.8583				
	RY LAYER							
143-14	44 0.9427	0.8841						
		INL	ET STATI	C PRESS	URES. PS			
RAKE W					. =			
	06 1810.4	1809.3	1784.4	N.G.	1735.3	N.G.		
RAKE B								
	12 1671.5	1671.8	1669.2	1672.6	1669•2	N • G >		
TOP								
	20 1926.7			1691.5	1718.1	1742.9	1747.7	1742.1
	24 1734.2	1785.8	1843.2	1864.3				
SIDE								
	32 1716.9		1899.9	-	1780.2	1786.7	1780.5	1783.0
	36 1772•3	N.G.	1821.4	1845.7				
SPLITTE				_				
	44 2129.2	N.G.	N.G.	2020.2	1508.3	1667.0	1771.4	1805.0
245	1846.5							
BOTTOM								
301-30		1789.2	1802.8	1802.8	1801.0	1790.8	1811.2	1809.7
309	1818.6							
		STATIC	PRESSUR	E COEFF	ICIENTS.	CP		
NACELL								
	17 N.G.			N.G.	N.G.	0.419	0.444	N.G.
	20 N.G.	0.471	0.512					
NACELLE								
	28 N.G.	-1.201	-0.631	0.294	0 • 335	0.409	0.554	N.G.
329								
CANOPY								
330-33		0.414	N.G.	N.G.	0.527			
_	CENTER L							
	2 0.861	0.515	0.291	0.133	0.241	0.352	0.554	0.553
CANOPY								
343-34	4 0.585	0.695						

RUN 5 BASIC CANOPY. 30E DUAL INLET. DUAL INLET SPLITTER PT 3 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

		BETA -0.12	M0 0.699	M/M* 0.592			_	
NR	PTC		PS		K	L		M/MO
					12.37		1.45	
		TOTA	L PRESSL	RE RATIO	OS. PT/P	Γο		
INLET F	RAKE				,	•		
	8 1.0031	1.0046	1.0052	0.8818	0.9951	1.0008	1.0052	N.G.
	6 1.0048			1.0054	_		-	
	4 1.0052		0.9998		1.0046		1.0052	1.0052
	0 1.0050		1.0050	1.0052		1.0049		200002
	Y LAYER					2000.		
	8 N.G.		0.8585	N.G.	0.8589	N.G.	0.8585	0.8584
	2 0.8585			0.8585				
	Y LAYER							
	4 0.9456	_						
		INL	FT STATI	C PRESSI	JRES. PS			
RAKE WA	1.1		LI SIAI.	C / KESS	J. 1. 0			
	6 1958.1	1962.3	1948.5	N.G.	1923.9	N.G.		
RAKE BU		170243	174065	11.00	176367	11.00		
	2 1891.4	1891.7	1886.9	1893.1	1888.9	N.G.		
TOP	2 107107	107107	1000.7	107361	1000.7	M.O.		
-	0 1617.3	2122.4	N.G.	1937.7	1925.9	1936.0	1934.1	1928.7
	4 1923.9		1977.3	1989.1	172347	1730.0	1/3441	192001
SIDE	4 172367	174164	17/165	190741				
	2 1471.0	2128.0	2069.9	2010.3	1070-8	1040.0	1957.5	1960.6
	6 1951.9	N•G•	1966.8	1979.5	177700	1,0,0,	173163	1900.6
SPLITTE		Nege	190000	19/903				
	4 2131.2	AL C	N C	2009.7	1759.6	1960 1	1931.0	1054 1
	1977.8	N.G.	N.G.	2009.1	1123.0	1860.1	133100	1954.1
245	19//40							
BOTTOM		2002 2	1000	1074 2	1044 5	1057 0	1040 0	1047 0
	8 N.G.	2003.3	1400.0	1974.2	1966.5	195/00	1404.0	1967.8
309	1972.4							
		674716	DDECCHO	E 60555				
NACELLE	TOD	STATIC	PRESSUR	E COEFF	CIENIS	CP		
NACELLE		0.063	A) C	N. C	N. C	0 000	0 / 2/	۸. ۵
310-31		-0.951	N.G.	N.G.	N.G.	0.383	0.424	N.G.
318-32		0.468	0.512					
NACELLE		- • • • •						
321-32		-1.126	-0.883	0.131	0.170	0.328	0.555	N.G.
329	0.555							
CANOPY		A 413	A1 6		0.5			
330-33		0.417	N.G.	N.G.	0.546			
	CENTER L		0 001	0.11	0.554	0 0 0	0	
	2 0.862	0.517	0.294	0.143	0.254	0.369	0.554	0.554
CANOPY								
343-34	4 0.614	0.740						

#### CTOL FLIGHT REGIME

RUN 5 BASIC CANOPY. 30E DUAL INLET. DUAL INLET SPLITTER BOUNDARY LAYER DUCT OPEN. L/H ENGINE OPERATIVE

					LP 1.00			
NR		PSC			K 1.00	L	WC U.E	M/MO
U.984	2097						1.40	
0.704	20311	1 1720	• 1 1 7 1		4024	1.50	1040	00024
		TOTA	I DDECCI	IDE DATT	OS. PT/P	r 0		
INLET F	DAVE	1014	L PRESSU	KE KAIL	031 P17P	10		
	08 0.9857	0.9963	0.9900	0.9581	0.9608	0.9690	0.9924	N.G.
	16 0.9942		0.9705			0.9999	0.9951	
	24 0.9738				0.9948		0.9778	0.9833
	30 0.9928		0.9940			0.9882	0.7770	007073
	RY LAYER H		0 6 7 9 4 0	0 9 9 0 0 9	0.9040	0.7002		
	BB NoGo		0.8570	N.G.	0.8573	N.G.	0.8572	0.8569
-	2 0.8570		0.8570		0.0513	14.0.	0.0372	0.6309
			0.0570	0 0 0 0 0 0 7				
	RY LAYER (							
143-14	4 0.9110	0.8703						
				6 00566	1D56 D6			
DAKE M		INL	EL SIALI	C PRESSU	JRES. PS			
RAKE WA	. – –	1040 3	1926.7	Al C	1007 2	N.G.		
	6 1932.7	1940.3	192001	N•G•	1907•2	N.O.		
RAKE BU	12 1867.4	1865.7	1872.8	1873.9	1868.0	N.G.		
	12 100/14	100301	1072.0	10/34/	100010	11.0.		
TOP	20 1673.7	2100.4	M G	1972 1	1877.9	1002.0	1995.5	1880•7
	4 1876.8	1910.9		1957.5	10//69	100300	100000	100047
SIDE	4 10/040	1,100,	194507	193103				
-	2 1508.9	2123.5	2046.2	1968.0	1939.4	1024 - 0	1022.1	1923.6
	6 1916.6			1951.0	173704	173407	1732 • 1	1723.0
	_	N.G.	193363	195100				
SPLITTE		A1 /:	<b>A</b> 1 C	1004 8	1400 4	1707 2	1869.4	1006 0
	4 1879.9	N.G.	N.G.	1996.8	1698•6	1/0/03	1007.4	1905.8
245	1933.2							
BOTTOM		1000	1000	1010 7	1026 1	1010 /	1007.1	1020 1
	8 N.G.	1883.1	1908.7	1919.7	1925.1	1919.4	1927.1	1928 • 1
309	1932.5							
			Ducario			- 13		
		STATIC	PRESSUR	E COEFFI	CIENTS	Cb		
NACELLE			A) C	A	N - C -	0.044	0.400	<b>N</b> C
310-31			N.G.	N.G.	N.G.	0.345	0.402	N.G.
318-32		0.464	0.509					
NACELLE								•
321-32		-1.271	-0.899	0.123	0.151	0.290	0.546	N.G.
329	0.547							
CANOPY								
330-33		0.422	N.G.	N.G.	0.564			
-	CENTER LI		0.00					
335-34		0.523	0.309	0.190	0.326	0.463	0.546	0.546
CANOPY		0-100						
343-34	4 0.613	0.688						

#### INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT 1/5 SCALE MODEL CTOL FLIGHT REGIME

BASIC CANOPY. 30E DUAL INLET. DUAL INLET SPLITTER KUN 5 PT 5 BOUNDARY LAYER DUCT UPEN. L/H ENGINE OPERATIVE

	ALPHA	BETA	MU	M/M*	LP	RP	BP	
	-0.01	-0.12	0.696	0.730	1.50	-0.03	OPEN	
NR	PTC	PSC	PSB		K	L	WC	M/MO
U.972	2071	•3 1763	3 1735	• 3	8.53	3.14	1.79	0.801

#### TOTAL PRESSURE RATIOS. PT/PTO INLET RAKE 0.9748 0.9510 0.9939 101-108 0.9808 0.9917 0.9154 0.9386 N.G. 109-116 0.9820 0.9332 0.9549 0.9694 0.9953 0.9983 0.9838 0.9461 117-124 0.9600 0.9730 0.9953 N.G. 0.9840 0.9552 0.9657 0.9780 0.9725 125-130 0.9930 N.U. 0.9852 0.9759 0.9843 BOUNDARY LAYER RAKE 0.8570 0.8570 N.G. 0.8569 N.G. 0.8570 131-138 N.G. 0.8570 139-142 0.8570 0.8572 0.8570 0.8572 BOUNDARY LAYER DUCT 143-144 0.8994 0.8671

INLET STATIC PRESSURES. PS

		* 14 = 1	LI DINIA		KLUF IU			
RAKE WALL								
201-206 17	781.6	1787.8	1761.0	N.G.	1722.9	N.G.		
RAKE BULLET	•							
207-212 16	49.2	1648.9	1662.5	1663.3	1656.0	N.G.		
TOP								
213-220 19	35.5	1991.1	N.G.	1606.5	1650.0	1674.9	1685.0	1680.0
221-224 16	72.6	1739.8	1799.7	1825.1				
SIDE								
225-232 17	23.4	2108.6	1864.6	1748.3	1731.1	1742.9	1747.7	1737.8
233-236 17	27.4	N.6.	1780.5	1808.7				
SPLITTER								
237-244 17	40.7	N.G.	N.G.	1971.3	1434.3	1565.3	1686.5	1740.4
245 17	85.0							
BOTTOM								
3-1-308	N.G.	1725.0	1748.6	1758.5	1761.3	1750.9	1763.4	1768.5
309 17	75.4							
		STATIC	PRESSURE	COLFFI	CIENTS.	CP		
NACELLE TOP	•							
310-317	N.G.	-0.602	N.G.	N.G.	N.G.	0.376	0.419	N.G.
318-320	N.G.	0.465	0.510					
NACELLE SID	E							
321-328	NoGo .	-1.351	-0.802	0.229	0.276	0.371	0.544	N.G.
329 0	.544							
CANOPY SIDE								
330-334	N.G.	0.422	N.G.	N.G.	0.544			
CANOPY CENT	ER LIN	E						
335-342 0	.862	0.523	0.310	0.195	0.335	0.476	0.544	0.544
CANOPY SIDE								
343-344 0	.581	0.636						

READ TUBES HORIZONTALLY AND CONSECUTIVELY. N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

ALPHA BETA MO M/M\* LP RP BP

RUN 5 BASIC CANOPY, 30E DUAL INLET, DUAL INLET SPLITTER BOUNDARY LAYER DUCT OPEN, L/H ENGINE OPERATIVE

	-0.01	-0.12	0.701	0.826		-0.0		N
NR	PTC	_		_	K	L	WC .	M/MO
0.964	2054		9 157	_	11.30	4.82	2.02	0.903
00,04	2034	. 1023	• > 1 > .	7 4	1100	4402	2002	00703
		TOTA	PRESSI	DE PATI	OS. PT/P1	T O		
INLET R	AVE	1017	L TRESSO	NE NAIT		. 0		
	8 0.9746	0.9880	0.9630	0.8890	0.9243	0.9344	0.9950	N.G.
	6 0.9731		0.9454	0.9633		0.9980	0.9759	0.9269
	4 0.9520		0.9963	N•G•		0.9265	0.9593	0.9768
	0.9940	N.G.	0.9826	0.9676	_	0.9265	0.7373	0.7788
			0 6 9 6 2 6	0.3078	0 6 7 7 34	0 8 7 0 4 0		
	LAYER F		0 0557	N C	0.0550	AL C	0.0554	0 0554
131-13			0.8554		0.8559	N.G.	0.8554	0.8554
	2 0.8554		0.8554	0.8554				
	Y LAYER D							
143-14	4 0.8914	0.8637						
DA45		INL	ET STATI	C PRESS	URES. PS			
RAKE WA					1510 5			
	6 1654.8	1659.6	1620.7	N.G.	1560.5	N.G.		
RAKE BU								
	2 1460.0	1459.2	1482.6	1476.9	1465.7	N.G.		
TOP								
	0 2038.5	1834.9		1375.6	1451.3	1502.4	1521.8	1516.2
	4 1504.9	1595.3	1682.2	1717.8				
SIDE								
225-23	2 1836.9	2070.2	1708.8	1550 • 1	1541.9	1574.9	1587.1	1578.3
233-23	6 1565.3	N.G.	1652.6	1692•4				
SPLITTE	R							
237-24	4 1657.4	N.G.	N.G.	1929.6	1211.5	1371.6	1531.4	1601.2
245	1660.5							
BOTTOM								
301-30	8 N.G.	1595.8	1620.7	1631.1	1633.2	1610.4	1626.8	1637.5
309	1647.5							
		STATIC	PRESSUR	E COEFF	ICIENTS.	CP		
NACELLE	TOP							
310-31	7 N.G.	-0.399	N.G.	N.G.	N.G.	0.395	0.428	N.G.
318-32	O N.G.	0.468	0.512					
NACELLE								
321-32	_	-1.271	-0.703	0.311	0.340	0.396	0.545	N.G.
329	0.544							
CANOPY								
330-33		0.423	N.G.	N.G.	0.536			
	CENTER LI							
335-34		0.524	0.311	0.194	0.341	0.482	0.544	0.544
CANOPY	-	~ <b>~ ~ ~ ~</b>			J-1	7776		UU 277
343-34		0.607						
743 34		91001						

#### INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT 1/5 SCALE MODEL CTOL FLIGHT REGIME

5 BASIC CANOPY. 30E DUAL INLET. DUAL INLET SPLITTER RUN

PT	8	BOL	INDARY	LA	YER	DU	ICT	OP	EN.	ВО	ТН	EN	GINES	OF	ERATI	VE		
			BET			۲				I/M#			LP		RP		BP	
	-		-0.												2.00			
NR			C													_		M/M0
0.98	0	208	9.3	15	75•	1	1	513	• 1		10.	60		6.0	15	2 • 1	.6	0.922
				TO	TAL	. PR	RES.	SUR	ER	ITA	05		PT/PI	0				
INLET						_												
			7 0.9															N.G.
			12 0.9										993			0.99		0.9410
			0.9							1•G•			899		500	0.98	24	0.9936
	_	0.995		N.G.	•	0.9	90	2	0.9	831	. 0	• 9	863	0.9	922			
BOUND			_															
			. 0.8							1•G•		• 8	258	N	• G •	0.82	58	0.8258
_	_	•	0 0.1	B 258	3	0.8	25	8	0.8	258								
			DUCT															
143-	144	0.908	6 0.8	3495	<b>5</b>													
				11	NLE	T S	TA	TIC	PR	ESS	URE	5.	PS					
RAKE I																		
201-2	206	1613.	6 16	18.7	7	157	5.	8	N	. G.	1	49	2.2	N	•G•			
RAKE	BUL	LET																
	212	1386.	6 138	85.	7	140	3.	5	139	2.5	1	37	8•1	N	•G•			
TOP																		
213-2	220	2051.	2 187	79.0	)	N	.G	•	134	5.1	1	429	9 • 2	148	2.9	1505	• 2	1493.6
221-2	224	1479.	8 157	75.8	3	167	0.	6	170	6.8								
SIDE																		
225-2	232	1846.	0 206	53.7	7	166	3.	U	149	5.3	1	50	4.9	154	1.6	1552	• 9	1548.4
233-2	236	1534.	3	V.G.	•	163	4.	2	167	6.3								
SPLITT	TER																	
237-2	244	2099.	2	N.G.	•	N	.G	•	185	1.6	1	19	1.5	141	7.9	1563	• 3	1606.8
245		1669.	2															
BOTTON	4																	
301-3	808	N.G	. 157	79.5	ó	160	4.1	8	160	8.4	1	60	5.3	158	1.8	1606	.1	1613.5
309		1622.																
			SI	TAT	ıc	PRE	SSI	JRE	co	EFF	101	EN	TS.	CP				
NACELL	E	TOP												•				
310-3		N.G	-0.	222	•	N	-G		N	•G•		N.	•G•	0.	455	0.4	73	N.G.
318-		N•G	-	492		0.			•	•		•••					•	
NACELI					•	•												
321-3		N•G	-1.	006	Ś	-0.	986	6	0.	418		0 .	420	0.	439	0.5	75	N.G.
329		0.57					•			•		- •					-	
CANOPY	/ S	_																
330-3		N.G	. 0.	444	•	N	•G	•	N	•G•		0.	550					
CANOPY									. •									
335-3				561	l	0.	332	2	0.	135		0.0	039	0.	332	0.5	73	0.573
CANODY		IDE																

READ TUBES HORIZONTALLY AND CONSECUTIVELY. N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

CANOPY SIDE

343-344 0.608 0.705

RUN	5	BASIC CANOPY. 30E DUAL INLET. DUAL INLET SPLITTER
PT	9	BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA	M0	M/M*	_			
410	-0.01	-0.12						
NR ( 070	PTC		PS	_	K	L . 15	WC	M/M0
0.919	2086	•7 1705	• 9 100	0 0 0	9 6 30	4.15	1.94	0.828
		TOTA	I DDESSI	DE DATI	OS. PT/P	TO		
INLET I	DAVE	1017	E PRESSO	WE WALL	55 F 17 F	10		
	08 0.9910	0.9968	0.9842	0.9073	0.9591	0.9838	0.9990	N.G.
_	16 0.9866		0.9749	0.9939	0.9984	0.9984	0.9864	0.9368
	24 0.9766			N.G.	0.9867	0.9461	0.9796	0.9917
	30 0.9946		0.9876			0.9905	••••	
	RY LAYER		3473.0	007.00	••,	007702		
131-1			0.8247	N.G.	0.8251	N.G.	0.8248	0.8247
	42 0.8247		0.8247					
_	RY LAYER			***************************************				
	44 0.9049							
	4 0 0 7 0 4 7	000412						
		INI	ET STATI	C PRESSI	JRES. PS			
RAKE W	ALL							
	06 1731.9	1737.0	1704.5	N.G.	1650.3	N.G.		
RAKE BI								
-	12 1569.3	1568.4	15/6.6	1581.1	1570.4	N.G.		
TOP								
-	20 1962.6	1971.3	N.G.	1545.8	1590.7	1630.0	1641.8	1637.6
	24 1629.1	1696.9	1768.9	1796.3				
SIDE			•					
	32 1748.9	2102.1	1804.8	1675.7	1667.3	1685.0	1674.6	1685.9
	36 1675.2	N.G.	1742.1	1770.3				
SPLITTE	•			•				
	44 2097.8	N.G.	N.G.	1829.0	1380 • 1	1567.6	1685.0	1720.9
245	1768.1							
BOTTOM	_							
301-30	08 N.G.	1726.0	1729.6	1727.8	1722.7	1707.6	1722.5	1725.3
309	1730.4							
		STATIC	PRESSUR	E COEFFI	CIENTS	CP		
NACELLE	TOP							
310-31	17 N.G.	-0.391	N.G.	N.G.	N.G.	0.438	0.463	N.G.
318-32	20 N.G.	0.490	0.535					
NACELLE	SIDE							
321-32	B N.G.	-1.084	-0.970	0.319	0.345	0.422	0.573	N.G.
329	0.573							
CANOPY	SIDE							
330-33	84 N.G.	0.445	N.G.	N.G.	0.557			
CANOPY	CENTER L	INE						
335-34	2 0.907	0.563	0.334	0.136	0.076	0.337	0.573	0.572
CANOPY	SIDE							
343-34	4 0.617	0.722						

# INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT CTOL FLIGHT REGIME

RUN 5 BASIC CANOPY. 30E DUAL INLET. DUAL INLET SPLITTER PT 10 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA	BETA -0.12	MU 0 - 797	M/M*	LP 1.00	RP 1•01	BP OPEN	4
NR	PTC		PS		K	Į.	WC OF EI	M/MO
U.984		2 1892			5.84	2.02		
04704	2070	10)2	101	701	3004	2402	1001	00044
		TOTAL	PRESSU	RE RATIO	OS. PT/P1	0.1		
INLET R	AKE					•		
	8 0.9992	1.0008	0.9890	0.9444	0.9587	0.9902	1.0019	N.G.
169-11	6 0.9899	0.9504	0.9732	0.9965	1.0005	1.0002	0.9897	0.9542
117-12	4 0.9764	0.9948	0.9989	N.G.	0.9890	0.9593	0.9792	0.9935
125-13	0 0.9964	N.G.	0.9891	0.9789	0.9852	0.9922		
BOUNDAR	Y LAYER F	RAKE						
131-13			0.8252	N.G.	0.8257	N.G.	0.8256	0.8256
	2 0.8256		0.8256	0.8257				
	Y LAYER (							
143-14	4 0.9051	0.8476						
		<b></b>			.22.2			
0.45		INL	ET STATE	C PRESSU	JRES. PS			
RAKE WA		1000 3	1800 0	A) 7	10// 0	<b>A</b> 1. <i>C</i>		
	6 1903.6	1909.2	1890.9	N.G.	1866.9	N.G.		
RAKE BU	2 1820.6	1820 6	1414 4	1420 0	1022 1	A) C		
TOP	2 1020.0	1820.6	1818.6	1829.9	1823.1	N.G.		
	0 1701.7	2098.4	N.G.	1835.5	1833•8	1852.2	1852.8	1040 0
	4 1844.0	1877.0	1921.1	1937.7	1033.0	1032.5	1025.0	1848 • 8
SIDE	7 107780	101160	192101	193101				
	2 1522.7	2126.4	2009.5	1929.6	1899.6	1895.1	1882.4	1888.9
	6 1879.9	N•G•	1907.0	1923.3	107700	107741	200204	10000
SPLITTE		1100	1,0,00	172363				
	4 2100.4	N.G.	N.G.	1820.3	1661.3	1783.6	1863.8	1890.3
245	1918.0							
BOTTOM								
301-30	8 N.G.	1872.9	1894.6	1899.5	1897.7	1892.6	1901.0	1901.5
309	1904.1							
		STATIC	PRESSURE	COEFFI	CIENTS.	CP		
NACELLE	TOP							
310-31		-0.830		N.G.	N.G.	0.393	0.442	N.G.
318-32		0.488	0.533					
NACELLE								
321-32		-1.121	-0.785	0.174	0.180	0.322	0.573	N.G.
329	0.573							
CANOPY		0 445	N . C	AL . C	0 500			
330-33	4    N.G. Center Li	0.445	N.G.	N.G.	0.580			
	2 0.906		0.334	(1-127	0.137	0.358	0.571	0.571
CANOPY		<b>0</b> , 703	V1334	00137	0.131	0 6 3 7 0	00011	0.511
	4 0.648	0.766						
フマフーブサ	7 04040	O 100						

#### INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT 1/5 SCALE MODEL CTOL FLIGHT REGIME

RUN 5 BASIC CANOPY. 30E DUAL INLET. DUAL INLET SPLITTER PT 11 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA -0.01	BETA -0.12	M0 0-600	M/M* 0•526	LP 1•00	RP		
NR	PTC				K	L	WC	M/M0
0.999		.8 1988			1.61	1.39		
	2.2.			. • -	1.01	1037		
		TOTA	L PRESSU	RE RATIO	S PT/P	Го		
INLET F	RAKE							
	08 0.9988	1.0000	1.0006	0.9848	0.9920	0.9972	1.0006	N.G.
109-13	16 1.0005	0.9971	1.0005	1.0008	1.0004	1.0007	1.0005	1.0004
117-12	24 1.0002	1.0002	1.0004	N.G.	1.0001	0.9978	1.0001	0.9996
125-13	30 1.0001	N.G.	1.0000	1.0000	1.0000	0.9990		
BOUNDAR	RY LAYER I							
131-13	88 N.G.	0.8890	0.8900	N.G.	0.8901	N.G.	0.8900	0.8900
139-14	2 0.8899	0.8900	0.8900	0.8900				
BOUNDAR	RY LAYER (	DUCT						
143-14	4 0.9592	0.9101						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	<b>ALL</b>							
	6 1995.3	2000.1	1989.4	N•G•	1970.5	N.G.		
RAKE BU								
	12 1945.6	1944.8	1948.2	1949.3	1943.4	N.G.		
TOP						2121		
	20 1634.8	2128.6	N.G.	1986.3	1980.7	1981.5	1979.2	1975.0
	24 1971.1	1983.2	2010.3	2019.3				
SIDE								
	32 1474.1		2090.8	2044.8	2019.3	2012.0	2006.6	2000.1
233-23	<del>_</del> _	N.G.	2001.8	2010.9				
SPLITTE								
	4 2131.4	N.G.	N.G.	1819.4	1848.5	1919.1	1973.9	1992.2
245	2009.7							
BOTTOM						. = =		
	8 N.G.	2022.0	2005.1	1996.4	1991.6	1987.5	1994.9	1994.1
309	1995.7							
			DDECCUO	E COUEET	CITAIRC	6.5		
		STATIC	PRESSUR	E COEFFI	CIENTS	CP		
NACELLE		0.060	A1 7			0 070	0 (10	<b>A</b> 1 C
310-31			N.G.	N•G•	N.G.	0.372	0.412	N.G.
318-32	_	0.452	0.493					
NACELLE		1 200	0.070	0 166	0 210	0 240	0 525	A) C
321-32		-1.288	-0.870	0.155	0.210	0.349	0.535	N.G.
329	0.535							
CANOPY		0 4.07	N C	N. C	0 522			
330-33		0.407	N.G.	N•G•	0.523			
	CENTER LI		0.201	0.102	0.260	0.262	0.534	0-534
335-34		0.491	0.291	0.193	0.269	0.362	0.534	0.534
CANOPY		0.711						
343-34	4 0.588	0.711						

RUN 5 BASIC CANOPY • 30E DUAL INLET • DUAL INLET SPLITTER PT 12 BOUNDARY LAYER DUCT OPEN • BOTH ENGINES OPERATIVE

	ALPHA	BETA	MO	M/M*	LP	RP	ВР	
	-0.01	-0.12	0.598	0.685	1.50	1.51	OPEN	
NR	PTC	PSC	PS	В	K	L	WC	M/MO
0.996	2124	.3 1868	8 184	4.6	3.48	2.67	1.68	0.816

#### TOTAL PRESSURE RATIOS. PT/PTO

INLET RAI	<b>ξ</b>							
101-108	0.9953	0.9982	0.9993	0.9646	0.9878	0.9936	0.9789	N.G.
109-116	0.9989	0.9900	0.9989	0.9993	0.9987	0.9992	0.9989	0.9989
117-124	0.9990	0.9989	0.9990	N.G.	0.9989	0.9947	0.9989	0.9974
125-130	0.9989	N.G.	0.9990	0.9990	0.9989	0.9990		
BOLNDARY	LAYER R	AKE						
131-138	N.G.	0.8900	0.8905	N.G.	0.8905	N.G.	0.8904	0.8904
139-142	0.8903	0.8903	U.8903	0.8904				
BOUNDARY	LAYER D	UCT						
142-144	0.9570	0.0006						

#### INLET STATIC PRESSURES. PS

		—						
RAKE WALL	_							
201-206	1886.1	1888.9	1868.0	N.G.	1832.1	N.G.		
RAKE BULL	LET							
207-212	1784.4	1783.0	1796.0	1788.4	1783.6	N.G.		
TOP								
213-220	1925.6	2059.4	N.G.	1807.0	1830.5	1838.6	1841.5	1836.4
221-224	1830.5	1865.7	1906.4	1923.3				
SIDE								
225-232	1722.3	2125.8	1962.3	1884.1	1870.3	1877.3	1881.6	1866.6
233-236	1859.0	N.G.	1889.7	1907.5				
SPLITTER								
237-244	2131.4	N.G.	N.G.	1814.1	1669.8	1776.0	1854.2	1880.4
245	1910.4							
BOTTOM								
301-308	N.G.	1874.4	1869.3	1873.4	1870.6	1867.8	1878.5	1877.2
309	1881.1							
		STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE 1	TOP					_		
_	N.G.	-0.530	N.G.	N.G.	N.G.	0.404	0.432	N.G.
318-320	N.G.	0.454		1,000				
J. U J. U		- • •						

NACELLE SIDE 0.397 321-328 N.G. -1.164 -0.681 0.295 0.337 0.535 N.G. 329 0.535 CANOPY SIDE 0.404 N.G. N.G. 0.506 330-334 N.G. CANOPY CENTER LINE 0.489 0.287 0.186 0.258 0.349 0.534 0.535 335-342 0.825 CANOPY SIDE 343-344 0.563 0.667

### INLET PRESSURE SURVEY RYAN VZ-11 AIRCRAFT

### CTOL FLIGHT REGIME

RUN	5	BASIC CANOPY. 30E DUAL INLET. DUAL INLET SPLITTER
PT	13	BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA -0.01	BETA -0.12	M0	M/M*	LP 2•00	RP 2 • 0		
NR	PTC				K	L	WC WC	M/MO
0.997		•4 1743			5.16	3.89	1.97	
		• • • • • • • • • • • • • • • • • • • •	110		3010	3007	2071	••••
		TOTA	L PRESSL	RE RATIO	S. PT/P	To		
INLET F	RAKE							
	08 U.9924	0.9977	1.0008	0.9498	0.9870	0.9927	1.0008	N.G.
	16 1.0007		1.0011	1.0013	1.0008	1.0013	1.0008	1.0006
	24 1.0010		1.0008	N.G.	1.0004	0.9954	1.0006	1.0006
125-13	30 1.0006	N.G.	1.0000	0.9999	1.0006	1.0006		
BOUNDAR	RY LAYER	RAKE						
131-13	88 N.G.	0.8900	0.8901	N.G.	0.8901	N.G.	0.8900	0.8901
139-14	2 0.8900	0.8901	0.8901	0.8901				
BOUNDAR	RY LAYER I	DUCT						
143-14	4 0.9551	0.9091						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE WA	_							
	6 1770.3	1772.3	1743.5	N.G.	1689.6	N.G.		
RAKE BL	_							
	12 1615.0	1615.3	1624.9	1623.8	1617.3	N.G.		
TOP								
	20 2071.3	1949.9	N.G.	1608.5	1661.9	1689.6	1700.9	1694.4
	24 1686.2	1744.3	1807.6	1830.7				
SIDE				. 700	.=			
	1893.4	2089.4	1806.5	1700.9	1706.8	1728.5	1735.3	1730.2
	6 1722.3	N.G.	1782.2	1809.3				
SPLITTE		A	A	1700 :	1404 0	1404 2	1725 0	17/0/
	4 2130.6	N.G.	N.G.	1799.1	1486.3	1634.2	1735.9	1768.6
245	1812.7							
BOTTOM	\Q N C	1698.2	1726 0	1751 4	1754 0	1740 4	1747 7	1740 5
301-30		1090.2	1/35.0	1/51.0	1756.0	1/40.0	110101	1/00.5
309	1774.6							
		STATIC	DDF CCHD	E COFEE	CIENTS.	CD		
NACELLE	TOP	317116	PRESSOR	L COLIT	CILMIST	CF		
	7 N.G.	-0.253	N.G.	N.G.	N.G.	0.429	0.445	N.G.
318-32		0.456	0.495			00427	00445	
NACELLE		3,430	00475					
321-32		-0.929	-0.486	0.371	0.390	0.416	0.535	N.G.
329	0.535	.,						
CANOPY	-							
330-33	-	0.403	N.G.	N.G.	0.497			
	CENTER LI				- •			
	2 0.825	0.487	0.284	0.180	0.252	0.341	0.535	0.534
CANOPY								
-	4 0.547	0.636						

### INLET PRESSURE SURVEY

RYAN VZ-11 AIRCRAFT

CTOL FLIGHT REGIME

RUN 5 BASIC CANOPY. 30E DUAL INLET. DUAL INLET SPLITTER PT 14 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

				LP		
-0.	01 -0.	12 0.39	9 0.595	2.00	2.00	OPEN
NR	PTC	PSC	PSB	K L	. WC	M/MO
0.999	2128.1	1943.7	1928.0	2.51 1.	82 1.	46 0.949

#### TOTAL PRESSURE RATIOS. PT/PTO

INLET RAI	ΚE							
101-108	0.9972	0.9998	1.0004	0.9758	0.9933	0.9963	1.0006	N.G.
109-116	1.0004	0.9950	1.0006	1.0008	1.0001	1.0007	1.0004	1.0005
117-124	1.0004	1.0005	1.0006	N.G.	1.0005	0.9975	1.0004	1.0002
125-130	1.0004	N.G.	1.0004	1.0004	1.0002	1.0006		
BOUNDARY	LAYER R	AKE					•	
131-138	N.G.	0.9465	0.9461	N.G.	0.9469	N.G.	0.9465	0.9465
139-142	0.9465	0.9465	0.9465	0.9465				
BOUNDARY	LAYER D	UCT						
143-144	0.9787	0.9550						

#### INLET STATIC PRESSURES. PS

RAKE WALL							
201-206 1955.9	1957.1	1943.2	N.G.	1918.4	N.G.		
RAKE BULLET							
207-212 1885.4	1884.5	1889.6	1890.4	1887.3	N.G.		
TOP							
213-220 2095.4	2041.2	N.G.	1881.7	1906.5	1917.8	1920.6	1919.8
221-224 1914.7	1941.8	1972.0	1982.8				
SIDE							
225-232 1998.9	2111.5	1970.9	1922.6	1926.9	1937.3	1939.8	1936.5
233-236 1932.5	N.G.	1959.0	1971.8				
SPLITTER							
237-244 2131.0	N.G.	N.G.	1789.4	1824.9	1888.7	1939.6	1955.1
245 1975.7							
BOTTOM							
301-308 N.G.	1909.5	1933.8	1943.5	1946.1	1944.8	1952.7	1951.9
309 1954.0							
	STATIC	PRESSUR	E COEFFI	CIENTS.	CP		
NACELLE TOP							
310-317 N.G.	-0.263	N.G.	N.G.	N.G.	0.405	0.420	N.G.
318-320 N.G.	0.425	0.466					
NACELLE SIDE							
321-328 N.G.	-0.815	-0.442	0.357	0.371	0.397	0.504	N.G.
329 0.503							
CANOPY SIDE							

N.G.

0.199

0.467

0.258

0.326

0.503

READ TUBES HORIZONTALLY AND CONSECUTIVELY.
N.G IMPLIES BAD TUBE. P.O PRESSURE OVERFLOW. DATA INVALID.

N.G.

0.280

0.387

0.453

0.595

330-334 N.G.

343-344 0.515

CANOPY SIDE

CANOPY CENTER LINE 335-342 0.773

0.503

RUN 5 BASIC CANOPY. 30E DUAL INLET. DUAL INLET SPLITTER PT 15 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA -0.01	BETA -0.12	M0		LP 1•50	RP 1 • 4		
NR	PTC	PSC			K	L	WC .	M/MO
0.999	2129		.6 198		1.79	1.25	1.26	0.813
		TOTA	L PRESSU	RE RATIO	OS. PT/P	TO		
INLET	RAKE							
101-1	08 0.9977	0.9995	1.0002	0.9831	0.9946	0.9971	1.0002	N.G.
	16 1.0001	-	1.0004	1.0010	1.0005	1.0008	1.0004	1.0004
	24 1.0005		1.0002	N.G.	1.0004	0.9986	1.0004	1.0004
_	30 1.0004	N.G.	1.0004	1.0006	1.0005	1.0004		
	RY LAYER							
131-1		0.9465	0.9465	N.G.	0.9465	N.G.	0.9465	0.9465
	42 0.9465	0.9465	0.9465	0.9465				
	RY LAYER I							
143-1	44 0.9794	0.9555						
		INL	ET STATI	C PRESSU	JRES. PS			
RAKE W	ALL	3.14						
201-2	06 2005.9	2006 • ₺	1997.4	N.G.	1980•2	N.G.		
RAKE BI	JLLET							
207-2	12 1955.7	1955 • 1	1956.2	1959.6	1956.8	N.G.		
TOP								
	20 2023.1	2094.9	N.G.	1965.8	1974.6	1981.1	1982.2	1980.2
221-2	24 1977.4	1989.5	2017.2	2025.4				
SIDE								
	32 1900.0	2130.2	2044.6	2004.5	1996.9	1998.6	1995.8	1996.9
	36 1992.1	N.G.	2008.5	2016.9				
SPLITT								
	44 2131.0	N.G.	N.G.	1792.5	1895.8	1948.9	1990.1	2003.1
245	2131.0							
BOTTOM	20 11 6	1000	1000 0	100/ 7	1000 0	100/ 7	2002 /	2222
301-30		1982.4	1993.9	1996.7	1998.0	1996 • 7	2003.4	2002 • 3
309	2004.6							
		STATIC	DDECCUD	E	CIENTS.	CD		
NACELLE	700	SIAIIC	PRESSUR	E GOEFFI	CIENTS	CP		
_	10P	-0.472	N.G.	N.G.	N.G.	0.384	0.410	N.G.
318-32		0.427	0.464	14.00	11.00	0.004	0.410	11.0.
NACELLE		0.421	0.404					
321-32	· · · <del>-</del>	-1.032	-0.578	0.317	0.342	0.378	0.503	N.G.
329	0.500	14075	44710		0.042	443.0		
CANOPY	-							
330-33		0.388	N.G.	N.G.	0.475			
	CENTER LI		• • •	,				
	2 0.775		0.278	0.203	0.263	0.337	0.502	0.503
CANOPY					_		_	
	4 0.529	0.621						

RUN 5 BASIC CANOPY. 30E DUAL INLET. DUAL INLET SPLITTER PT 16 BOUNDARY LAYER DUCT OPEN. BOTH ENGINES OPERATIVE

	ALPHA -0.01	BETA	MO 0 - 400	M/M#	LP 1•00		BP L OPE	
NR			PS		K 1.00	L 100	WC OFE	M/MO
1.000		0 2057		_	0.83	0•68	· · · <del>-</del>	
1.000	2130	2051	• 5 205	107	0 0 0 3	0.00	0.75	0.012
		TOTA	I PRESSU	RE RATIO	OS. PT/P	TΩ		
INLET R	AKF	,,,,	L / KEOOC	ME MAIL		. •		
	8 0.9978	0.9996	1.0004	0.9924	0.9953	0.9984	1.0004	N. G.
	6 1.0001		1.0004	1.0007	1.0002	1.0005	1.0002	1.0004
	4 1.0000			N.G.	1.0001	0.9990	1.0001	1.0001
125-13		N•G•	1.0004	1.0004		1.0005	10001	10001
	Y LAYER I		1.0004	1.0004	1.0002	1.0005		
	8 NoGo		0.9463	N.G.	0.9465	N.G.	0.9463	0.9462
	2 0.9463		0.9463	0.9464	00,405	14000	007403	007402
_	Y LAYER I		0 6 7 40 3	007404				
	4 0.9806							
143-14	4 0 9 9 0 0 0	0.7337						
		TNI	FT STATE	C PRESSI	JRES. PS			
RAKE WA	.1 7	1746	L. SIAIL	C I KESS				
	6 2061.3	2062.7	2057.9	N.G.	2048.3	N.G.		
RAKE BU		20020.	203.07		204003			
	2 2035.6	2035.3	2035.3	2037.8	2035.0	N.G.		
TOP	2 2033,00	203563	203343	203100	203340	NOO		
	0 1844.4	2130.4	N.G.	2057.6	2052.8	2054.5	2053.1	2050•2
	4 2048.8	2054.8	2069.2	2073.7	203200	203465	203341	2030.2
SIDE	7 2040.0	2074.0	2007.2	201361				
	2 1715.7	2125.6	2111.2	2088.4	2074.2	2069.4	2063.8	2063.5
233-23		N.G.	2064.4	2068.6	201462	200784	2003.0	2003.5
		M*O*	2004.4	200000				
SPLITTE	4 2131.0	N.G.	N.G.	1799.2	1986.4	2021.2	2049.1	2059.0
245	2120.6	M•0•	14.0.	117762	170044	2021.2	204961	2039.0
	2120.6							
BOTTOM	A ALG	2047.3	2061.4	2064-6	2064 . 9	2066.4	2041.2	2060.6
301-30		200103	2001.4	2050 6	2056 • 8	2056.3	2061.2	2059.6
309	2060.7							
			55555					
		STATIC	PRESSUR	E COEFF	ICIENTS.	CP		
NACELLE		0 401	A) 6			0.054	0.001	AL .C
310-31		-0.891	N.G.	N.G.	N.G.	0.354	0.391	N.G.
318-32		0.424	0.462					
NACELLE	_	3 304	0 007	0 210	0 257	0.050	0 504	A1 C
321-32	-	-1.284	-0.807	0.210	0.257	0.350	0.504	N.G.
329	0.503							
CANOPY		0 200	A) C	A. C	0 400			
330-33		0.390	N.G.	N•G•	0.488			
	CENTER LI		0 205	0.300	0.333	0 240	() E 0.2	0 500
335-34		0.457	0.285	0.209	0.272	0.348	0.503	0.502
CANOPY		0						
343-34	4 0.551	0.664						